## **Architectural Program**

# Seaton Hall Expansion & Renovation



**April, 2013** 

**Prepared By** 

Kansas State University
Campus Planning & Facilities Management
College of Architecture, Planning & Design
Ennead Architects

## **Programming Committee**

#### College of Architecture, Planning & Design

#### ■ Tim de Noble

Dean

College of Architecture, Planning & Design

#### ■ Wendy Ornelas

Associate Dean

College of Architecture, Planning & Design

#### **■** Lynn Ewanow

Associate Dean

College of Architecture, Planning & Design

#### ■ Lisa Shubert

Administrative Assistant to the Dean

College of Architecture, Planning & Design

#### **Division of Facilities**

#### ■ A. Abe Fattaey

**University Architect** 

Director of Campus Planning and Facility Management

#### ■ Mark D. George

Project Manager

Campus Planning and Facility Management

#### **Ennead Architects**

#### ■ Felicia Berger

Project Manager

Ennead Architects, Programming & Concept Design Consultants

#### **■** Kevin McClurkan

Management Principal

Ennead Architects, Programming & Concept Design Consultants

#### **■** Tomas Rossant

Partner and Designer

Ennead Architects, Programming & Concept Design Consultants

#### ■ Greg Smith

Designer

Ennead Architects, Programming & Concept Design Consultants

#### **Kansas State University Foundation**

#### ■ Larry Fox

Director of Real Estate

## **Table of Contents**

Introduction	4
Current Situation	4
Competitive Market	5
Project Description	6
Programmed Space	7
Program Space Summary	
Building Design	11
Architectural Design	
Building Elements	
Applicable Codes and Regulations	
Building Code Highlights	
Mechanical, Electrical and Plumbing Systems Design	
HVAC Systems	
Electrical Systems	
Fire Protection Systems	
Water Distribution Infrastructure	
Sanitary Sewer Infrastructure	
Storm Water Infrastructure	
Storm Water Management	14
Programmatic Concept Design	15
Project Budget and Timeline	
Budget	
Funding Source	
Maintenance and Operating Expenses	
Project Timeline	
Appendix A - General Building Requirements	23
Appendix B - Detailed Space Requirements	24
Technological Academic Spaces	24
Specialty Instruction, Research and Support Spaces	27
Fabrication Labs	
Academic Support Spaces	
Academic Department Administrative Support Spaces	
College Administrative Support Spaces	
Information Technology Support Spaces	
Weigel Library	
General Building Spaces	
General Building Support Spaces	
Appendix C - Definitions and Space Use Codes	73
Appendix D - Site Infrastructure Maps	76
Appendix E – Seaton Expansion & Renovation-Propose	

### **Architectural Program**

## Seaton Hall Expansion & Renovation

### Introduction

Nestled in the core of the Kansas State University campus is Seaton Hall and Court, the College of Architecture, Planning & Design (APDesign) has been an integral part of the university for more than 100 years. From the first landscape gardening course offered at K-State in 1878 to the college's formal designation in 1963, the institution has strived to provide a creative and stimulating learning environment for all participants, fostering leadership committed to responsible stewardship in design of the built and natural world and its diverse citizens. APDesign is embedded in K-State's history and heritage and has excelled as a leader in an industry rooted in design/planning collaboration, and innovation as evidenced by the top ten national rankings of the programs housed in the college's departments of Architecture, Interior Architecture & Product Design and Landscape Architecture|Regional & Community Planning.

The primary values that guide the interactions, decisions and work of faculty and students are respect, passion, diligence, integrity, diversity, innovation, tolerance, and excellence – all of which are embedded in the college's pursuit of its six core commitments and in line with the aspirational objectives of K-State 2025:

- A creative, stimulating learning environment that inspires shared learning and creative growth.
- A motivated and compassionate diverse faculty and staff committed to excellent teaching, relevant research and exemplary service to the community and the profession.
- A relevant, dynamic curriculum built on a paradigm of reflective practice.
- An inquisitive, creative and diverse student body actively engaged as leaders within the college, the university, and the profession.
- A network of external supporters who are actively engaged in support and advocacy of the college.
- Sustained funding in support of the mission, objectives, and strategies of the college.

#### **Current Situation**

The College of Architecture, Planning & Design is committed to a future in the Seaton Hall/Court complex. However, the current condition of the building that it calls home no longer supports the college's mission, values and core commitments – or the university's mission as a land-grant institution. It is important that this high-profile college maintain a central location on the campus as this affords our students opportunities to more readily engage in social and governance activities with their peers from other disciplines at the Union and the primary public spaces of the campus. Additionally, in that the allied design and planning disciplines espouse the virtues of 'urban' life, our immediate adjacency to both Hale Library and the Union, as well as our relative proximity to the urbanized area of Aggieville, accords with our values:

- Remodeling and adding on to Seaton Hall and Court affords us the opportunity to create a 21st-century learning and research facility reflecting our belief in the enriching potency of design, while conveying our dedication to the historic heritage of our traditional home, and demonstrating our commitment to the stewardship of the environment.
- Given the urgency of upgrading Seaton Court, and to that end Seaton Hall, to a level of quality befitting the national reputations of our programs, our projects can and should serve as a model of intervention for all subsequent remodel/additions in the historic core of the campus.

The sorrowful state of the Seaton Complex, particularly Seaton Court, is common knowledge not only among the APDesign community, but also within the administration, faculty, staff, students, alumni, and accrediting bodies. In short, Seaton Court is an embarrassment, visually undermining K-State's pronouncements of excellence and quality. While remedial measures have been undertaken to deal with roof leaks and storm damage, these are solely stop-gap measures, allowing continued use of Seaton Court until it can be remodeled or replaced.

As is well known, the spaces in the foundry building (Seaton Court) range from barely adequate to condemnable and are of a poor configuration for teaching of any kind, including design education in the 21<sup>st</sup>-century. As previously mentioned, remedial work has been carried out on the roof to alleviate water infiltration. However, the space remains substandard by today's measures. Significant portions of the building have recently been razed due to structural deficiencies, further reducing the programmable space to dedicate to teaching and research. As there is no real historical significance associated with this structure, it is appropriate to consider its replacement, while maintaining Mechanics Hall, one of the oldest buildings on campus, and Seaton Hall both of which contribute significantly to the ambience and character of our beautiful campus.

By the fall of 2018, Kansas State University will be home to a center for design innovation; a technologically advanced learning facility that will house classrooms, studios, a state-of-the-art college workshop, interactive learning spaces, galleries and a large lecture hall. In this new facility, students will have the opportunities to work on real-life design research projects at 100% scale. There will also be research spaces to pursue new design technologies and a technologically enhanced lecture hall to support resident and visiting educators from a wide range of disciplines.

#### **Competitive Market**

Given the national prominence of our programs and their relative affordability, the College of Architecture, Planning & Design competes for students around the country. As evidenced in the following image, most of APDesign's direct regional and national competitors have new or recently updated facilities. Aspirant design students choose their college based not only on the reputation of the programs, but also on the quality of the facilities, understanding them as an indication of the college's commitment to design and building. Many of the students recruited by the college attended K-12 facilities significantly more modern, better equipped and in a much better state than the Seaton complex.

State-of-the-art facilities, coupled with excellent and innovative academic and professional development programs, will enable the college to recruit and retain the best design and planning students and faculty, fulfill the university's land grant mission, and be responsive to the needs of the alumni and corporate partners.



#### **Project Description**

An exciting future lies ahead for APDesign as its Seaton Complex is transformed into a 21<sup>st</sup>-century hub of teaching, research, and learning that reflects the college's concern for the environment and promotes interdisciplinary collaboration.

Revitalizing our Seaton Complex affords us the opportunity to a create a 21<sup>st</sup>-century interdisciplinary learning and design research facility reflecting our belief in the enriching potency of design, while conveying our dedication to the historic heritage of our traditional home and demonstrating our commitment to the stewardship of the environment. Given the urgency of upgrading Seaton Court and Hall to a level of quality commensurate with the national reputation and standing of our programs, this project has the potential to serve as a paradigm of best practices in revitalizing the historic core of campus. We have the opportunity to set the sustainable standard on campus in the design of our revitalized complex and it is our goal to be the exemplar, not only for Kansas State University, but for other universities as well!

Design education has changed significantly over the past twenty years as the technology used in design and production has evolved. The computer has changed the way we carry out our design investigations while digital production has dramatically changed how our designs are created. Recognizing these changes, we have invested significant resources in acquiring and staffing state-of-the-art equipment for use by students and faculty within APDesign, better preparing our charges for the trajectory of design practice in the 21<sup>st</sup>-century. However, while we have made strides in this area, we have been forced to do so in low-grade space that more often than not dictates and limits our potential for interaction in research and design. It is time we retool our facility in line with our needs and aspirations for interdisciplinary activity in this era of holistic design. As Kansas State University moves toward its goal of becoming a Top 50 public research institution by the year 2025, increasing interdisciplinary interaction will be emphasized in APDesign. We must have spaces and amenities with flexibility affording our students and faculty the opportunity to work with other disciplines.

- 1) The following projects are renovation projects aimed at improving the functionality of current spaces
  - a. A remodel of all spaces on three floors of Seaton Hall East incorporating new mechanical, electrical, and networking systems commensurate in accommodation of the projected building program. The current situation of Seaton Hall East includes inadequate and noisy mechanical systems, inflexibility of electrical and networking systems, and other deficiencies including noise control and life safety concerns.
  - b. Renovating the two floors of Mechanics Hall, maintaining and reinvigorating its historical aspects while making it fit the needs of our college. Built in 1875, it is one of the oldest buildings on campus which was last remodeled in 1977, when it was renamed Seaton Court. The renovation will remedy numerous fire codes and deferred maintenance issues as well as significantly improve some of the college's most degraded spaces.
- 2) The following project (New Construction/Demolition) is a replacement/addition project in line with the goals and aspirations stated above. (See diagrams)
  - a. Two or three-story learning and research center with classrooms, studios, galleries, auditorium, visualization/lighting/day lighting laboratories, digital production facilities, design+build shop, and faculty/staff/administrative offices. Includes new entry with public lobby and connection to Seaton and Mechanics Halls. This construction replaces late 19<sup>th</sup> and early 20<sup>th</sup>-century, largely single-story foundry space with ad hoc additions including mezzanines and attached low-grade storage areas. This construction is not historic in value, poorly arranged spatially relative to current uses and sequences, and is exceedingly difficult to manipulate to accommodate modern HVAC, electrical, networking and plumbing systems.

## **Programmed Space**

## **Program Space Summary**

The programmed spaces on the following pages are to be integrated into the design of the new facility in accordance with the design considerations established in this document.

	Space Detail	QTY	Space Factor	ASF Total
AP DESIGN ADMINISTRATION TOTA	L			18,860
Dean's Administration Subtotal				4,800
Dean's Reception Area	Seating for 4 and display	1	200	200
Admin Asst to the Dean, Project		2		
Coordinator, Student Worker	Office Landscape	3	100	300
Asst to the Dean, Budget/Fiscal Officer,	D: OCC : D I C:	2	1.50	450
Accountant	Private Offices, proximate to Dean's Suite	3	150	450
Dean - APDesign		1	350	350
Associate Dean		1	275	275
Shared Workroom	3 student workers with desks for each	1	225	225
File/Records Room/Storage/Mail Room		1	80	80
Dean's Small Conference Room	4-6 people x 25 sf per person	1	150	150
Copy/Fax/Scanner/Pantry		1	150	150
Dean's Coat Closet		1	15	15
Dean's Restroom	One unisex HC accessible restroom	1	65	65
Dean's Large Conference Room	25 people x 25 sf/person	1	625	625
Dean's Storage	Replaces existing third floor storage	1	200	200
Student Workstations	3 student workers with desks for each	1	225	225
Budget/Fiscal Reception Area	Seating for 2	1	100	100
Communications and Events Coordinator	Includes space for part time student	1	200	200
APDesign Merchandise Closet	metades space for part time student	1	80	80
Shared IT Workroom/Office Suite	Includes 3 desks existing staff, 1 future staff and student worker	1	550	550
IT Queuing, IT Storage	Dutch door or secure svc counter preferred	2	80	160
Faculty/Staff Break Room		1	350	350
Faculty Mailboxes		1	50	50
Offices of Student Services Subtotal		L		2,330
Reception Area - Prospective Students	Provide department pin up space in the corridor outside of the offices	1	150	150
Associate Dean		1	275	275
Admin Asst	Office Landscape	1	100	100
Director of Student Recruitment	•	1	175	175
Dean's/Student Services Meeting Room	25 people x 25sf/person	1	625	625
Reception Area - Current Students	Provide department pin up space in the corridor outside of the offices	1	150	150
Director of Academic Services and Academic Advisor		1	175	175
Coordinator, Professional Development Staff Office		3	150	450
Shared Office	Space for 3-4 student workers	1	150	150
Office Storage	Include "secret closet" storage	1	80	80
Oz Subtotal				430
Office (2 student editors)	Central location (connection to younger students)	1	175	175
Reception Area/Workplace	Flexible area for production and sales	1	175	175
Merchandise Storage	•	1	80	80
APDesign Faculty Offices				11,300
Tenure Track Facility T/TT		50	175	8,750
Term Faculty & PhD/Research Coordinator		17	150	2,550

	Space Detail	QTY	Space Factor	ASF Total
ENVIROMENTAL DESIGN STUDIES TO	OTAL			12,280
Studios Subtotal				12,280
1st Year	20 desks=18 desks+2 extra per studio (60 sf/person); 180 desks+20 flex=200 desks	10	1,200	12,000
Department Accreditation Archive	Si person), 100 desks 120 nex-200 desks	1	200	200
Dedicated Clean-up Space	In lieu of existing wet areas in current studios	1	80	80
ENV'L, DESIGN & PLANNING PHD TO				1,350
Studio Subtotal				1,350
Studio Subtotai	18 desk=16 desks+2 extra (75 sf/person), Room		1	1,330
PhD Studio	should have 10 workstations with a shared, private workroom for student mtgs.	1	1,350	1,350
ARCHITECTURE TOTAL				25,985
Studios Subtotal				24,380
Architecture Studios (including MS ARCH)	18 desks=16 students+2 extra (75 sf/person); 304 desks+38 flex=342 desks	18	1,350	24,300
Dedicated Clean-up Space	In lieu of existing wet areas in current studios	1	80	80
<b>Architectural Department Administration</b>	Subtotal			1,605
Department Head		1	225	225
Associate Head, Academic Advisor		2	175	350
Admin Asst, Office Manager, Reception Area	Office Landscape	3	100	300
Copy/Fax/Scanner/Supplies	12 people x 25 sf/person	1	100	100
Department Conference Room - Arch		1	300	300
Departmental Office Storage		1	80	80
Department Accreditation Archive		1	250	250
IAPD TOTAL				12,285
Studios Subtotal				10,480
IAPD Studios	18 desks=16 desks+2 extra (75 sf/person); 112 desks+14 flex=126 desks	7	1,350	9,450
Dedicated Clean-up Space	In lieu of existing wet areas in current studios	1	80	80
Lighting Lab	Must accommodate 30 students	1	550	550
Product Design Studio - Mockups	Space for full scale mockups	1	400	400
Department Administration Subtotal		1	225	1,805
Department Head Associate Head, Academic Advisor	*AH office doesn't need to be part of suite	2	225 175	225 350
Admin Asst, Reception Area	Office Landscape	3	100	300
Copy/Fax/Scanner/Supplies	Office Editescape	1	100	100
Departmental Conference Room - IAPD	20 people x 25/person (Jack C. Durgan Conference Room)	1	500	500
Departmental Office Storage	Complete Room)	1	80	80
Departmental Accreditation Archive		1	250	250
LA/RCP TOTAL				14,855
Studio Subtotal				13,000
LARCP Studios	18 desks=16 desks+2 extra (75 sf/person)	9	1,350	12,150
MRCP 2 <sup>nd</sup> Year Studios	18 desks=16 desks+2 extra (40 sf/person)	1	720	720
Dedicated Clean-up Space	In lieu of existing wet areas in current studios	1	80	80
Community Develop. Program Outreach	Display; 160 desks+20 flex=180 desks	1	50	50
Department Administration Subtotal				1,855
Department Head		1	225	225
Associate Head, Academic Advisor		2	175	350
Admin Asst, Office Manager, Student Asst	Office Landscape	3	100	300
Project Coordinator		1	150	150
Reception Area, Copy/Fax/Files/Supplies	12 people v 25 of/general	1	100	200
Departmental Conference Room - LARCP Departmental Office Storage	12 people x 25 sf/person	1	300 80	300 80
Departmental Accreditation Archive		1	250	250
Departmental Accreditation Atomice		1	230	250

	Space Detail	QTY	Space Factor	ASF Total
APDESIGN SHARED SPACE TOTAL				43,360
Fabrication Labs Subtotal		1	T	19,630
Metal - Shared IAPD/College	15% reduction in program space due to efficiencies of shared resources	1	1,700	1,700
CNC Router/Digital Fabrication	5,500# router + space for future digital fabrication equipment	1	1,500	1,500
Digital Fabrication Control Room		1	100	100
Fabrication - Shared IAPD/College	15% reduction in program space due to efficiencies of shared resources; assumes temporal separation of activities or embargoes areas	1	5,250	5,250
Wood Storage - Shared IAPD/College	Assume 15% reduction in program space due to efficiencies of shared resources	1	1,000	1,000
Fabrication Lab Storage, Metal Storage	APDesign does not currently have a metal storage room	2	300	600
Model Making	Similar in size to existing	1	950	950
Glue/Display/Vac. Form		1	700	700
Finishing Lab/Spray Booths		1	1,000	1,000
Upholstery		1	250	250
Fabrication Lab Manager		1	150	150
Collaborative Office/Workspace	3 people and 1 hot desk for student assistants	1	450	450
Fabrication Lab Library	Storage for equipment manuals, reference guides and spare parts	1	80	80
Plot Club	550 participants	1	500	500
Plot Club Storage		1	200	200
Center for Excellence in Mobile Interiors	2,000 with Aircraft/1,050 w/out Aircraft	1	2,000	2,000
Fifth Year Furniture Design Thesis Studio	8 people x 100 sf/person (Stephen M. Murphy Furniture Workshop)	1	800	800
Interdisciplinary Material Library	•	1	800	800
Laser Club/3d Print Lab	185 Participants	1	400	400
Printmaking Shop	Shared with layout portion of glass studio	1	400	400
Glass Studio	100 kiln. Shared with print making	1	150	150
LARCP Shop Space	Surveying & fluvial equipment storage	1	500	500
Fluvial Trailer Storage	Interior storage for equipment in addition to exterior space	1	150	150
Student Gathering/Events Subtotal	•			4,350
Building Lobbies/Gathering Space	Programmed space	1	3,000	3,000
Social Pods	Located throughout the building. 1 dedicated to student organizations	4	250	1,000
Student Mailboxes		1	50	50
Catering Kitchen	Prep and serving only (refrigerator, coffee machine, sink, dishwasher)	1	200	200
Vending Alcove		2	50	100
Gallery Subtotal				1,080
Chang Gallery	Secure room. Can be used as crit space	1	1,000	1,000
Gallery Storage/Support	8 x 10 closet	1	80	80
Auditorium Subtotal		1	ı	4,850
300 seat Auditorium	400 raked seating+120 fixed/tractable seating for 180. Retractable seating area can also be used as a multi-purpose room with banquet seating for 120 +/-	1	4,500	4,500
Control Room		1	200	200
General Storage		1	150	150
Research Based Centers Subtotal		_	1	1,350
MLab/Fluvial Geomorphic Survey Equip/Entrepreneurship Programs	18 desks= 16 desks+2 extra (75 sf/ person), designed as research incubator, could support future studio section or flex space for	1	1,350	1,350
	design/build studio			

	Space Detail	QTY	Space Factor	ASF Total
Crit Subtotal				5,500
Crit (420)	20 people x 20 sf/person	7	400	2,800
Crit (600)	30 people x 20 sf/person	1	600	600
Crit (800)	40 people x 20 sf/person	2	800	1,600
Crit Storage		10	50	500
Classrooms Subtotal		1	T	6,600
40 Seat Flat floor flexible classroom	40 people x 25 sf/person	1	1,000	1,000
80 seat flat floor flexible classroom	80 people x 25 sf/person	1	2,000	2,000
60 station technology rich classroom	60 people x 25 sf/person	1	1,500	1,500
Flex studio (Seaton 001)	18 desk=16 desks+2 extra (75 sf/person)	1	1,350	1,350
Distance Education Monitoring/Control	2 people x 75 sf/person	1	150	150
Online content recording facilities	MFA Program, could share with Media Studio	1	150	150
Media Studio	Sound stage, immersive environment, heliodon storage	1	450	450
<b>Building Support Space</b>				0
Server Room	In GSF-Capacity to serve rendering and GIS computational needs	Included in general		use factor
Data/Telephone Closets	In GSF	Included in general use		use factor
Main Recycling Storage (LEED req.)	In GSF	Included in general use fa		use factor
LIBRARY TOTAL				6,280
Weigel Library Subtotal				6,280
Stacks	Ideal adjacencies are Computer Lab and lounge seating/commons	1	4,250	4,250
Periodicals		1	350	350
Quiet Study Area	6 people x 25 sf/person	1	150	150
Group Study Area	3 worktables for groups of 4, locate separate from quiet study area	1	300	300
Computer/Scanner Workstations		1	200	200
Exhibit/Display		1	50	50
Circulation Desk	Locked with personal storage closet for librarian and staff sitting in open plan	1	100	100
Staff Workroom	Break room with kitchenette and worktable	1	150	150
Shared Staff Office		1	100	100
Special Collection		1	500	500
Library Restrooms	Unisex HC accessible restrooms	2	65	130
UNIVERSITY ASSETS				2,000
Instructional Space				2,000
40 Seat Flat Floor Flexible Classroom	Exist. Rooms to be demolished and replaced. 40 people x 25 sf/person	2	1,000	2,000
TOTAL ASSIGNABLE SQUARE FEET (			137,255	
STRUCTURAL & NON-ASSIGNABLE A	REAS (53% ave.)		72,745	
TOTAL GROSS SQUARE FEET (GSF)			210,000	

## **Proposed Allocation of Total Program Space Requirements**

New Construction	110,699 GSF
Mechanics Hall (Renovation of Existing Space)	16,018 GSF
Seaton East (Renovation of Existing Space)	68,983 GSF
Seaton South Central and West (Reuse of Existing Space)	14,300 GSF

## **Building Design**

#### **Architectural Design**

A successful design for this new structure will be an expression of architectural excellence "of its own time" while respecting and complimenting the character and image of its historic context.

Construction materials should be of institutional quality and require very little maintenance. New construction should anticipate and complement the spatial quality of a future quad to the north of Seaton Hall and west of Hale Library as proposed in the Campus Master Plan.

It is expected that the architect will validate required assignable spaces in this program based on the continuing evolving needs of a university curriculum. Non-assignable spaces such as circulation corridors, mechanical rooms, and storage should be validated based upon occupancy needs. Collaborative and study spaces are intended to be interwoven throughout the building to support opportunities for impromptu interactions between students, faculty, and visitors.

Although LEED certification is not a design requirement, the architect should incorporate sustainable features including day lighting, passive solar, energy recovery and other features, which are readily achievable and have a sound financial basis within the construction budget.

#### **Building Elements**

The structural system is anticipated to be a conventional system, likely either cast-in-place concrete or steel frame/steel joist/metal deck/concrete slab. The minimum floor load capacity must be dead load plus 100 pounds per square foot.

Two to four elevators will be provided in the new addition. Elevators will have 5,000 pound capacity, electric traction, combination passenger/freight service, with landings at each floor and a roof level penthouse. The cabs and controls are to be ADA compliant.

The building should have integrated vertical and horizontal chase systems to permit future flexibility and adaptability of mechanical, electrical, plumbing, and telecommunications systems.

#### **Applicable Codes and Regulations**

The new facility must meet applicable codes and standards adopted by the State of Kansas. At the time of this programming, it includes the following:

- International Building Codes
- Kansas Fire Prevention Code or NFPA 101, 2000 Addition
- Americans with Disabilities Act and Americans with Disabilities Act Architectural Guidelines
- Kansas Statutes
- Regulations from the Office of Facilities and Property Management
- Regulations from the Kansas State Fire Marshal
- Kansas State Boiler Code KSA 44-913
- ANSI/ASME A17.1 Elevator Code
- ASHRAE 90.1

Other Applicable Codes, Standards and References:

- 2002 NFPA 10 Portable Fire Extinguishers
- 2002 NFPA 13 Installation of Sprinkler Systems
- Code of Federal Regulations 29 CFR 1910 Occupational Safety and Health Standards
- State of Kansas, Office of Facilities and Property Management (OFPM) Building Design and Construction Manual

#### **Building Code Highlights**

General building requirements are indicated as follows:

- Occupancy Classifications: Type B Business (primary), with accessory support spaces of other occupancies such as storage; Type A-3 Assembly, with accessory support spaces.
- **Construction Type**: Type I construction is anticipated.
- **Sprinklers**: Required.
- **Exits Required**: Based on Use Group Classifications A and B.
- Maximum Dead-End Corridor Distance: 50 feet.
- **Minimum Corridor Width**: Not less than 44 inches (84 inches desired).
- **Travel Distances**: 200 feet maximum (in fully sprinklered building).
- **Common Path of Travel**: 75 feet maximum (in fully sprinklered building).
- Minimum Plumbing Fixtures Required: Based on Use Group Classifications A and B.
- Accessibility: An accessible route is required throughout the entire building except in mechanical spaces.
- **Emergency Egress Lighting**: Emergency lighting is required at one footcandle (minimum) along the exit path extending to the public way.
- **Fire Extinguishers**: Fire extinguishers as required per Section 906 of the International Fire Code, located so that the maximum travel distance does not exceed 75 feet. (Fire extinguishers provided by Owner.)

#### Mechanical, Electrical and Plumbing Systems Design

The following is a brief description of the proposed mechanical, electrical, and plumbing systems. This narrative is based on analysis of the preliminary floor plans for an 110,000 GSF, 3-story building addition and the renovation of approximately 68,000 SF of existing floor space in Seaton East.

#### **HVAC Systems**

Heating and cooling loads for the new addition and renovation area will be calculated after the development of a final concept design.

- Heating and cooling will be provided by a combination of air handling units and fan coil units to provide individual room temperature control for all classrooms, offices, and common public areas. Each unit will be equipped with a chilled water cooling coil and either steam or hot water heating coil.
- Dedicated outside air systems will provide outside air conditioned to room-neutral conditions per ASHRAE 62. The fresh air quantity will be demand-limited in response to occupancy and/or space carbon dioxide levels for reduction in operating energy. Heat recovery from exhaust air streams will be included in the design of the outside air systems.
- Toilet rooms will be exhausted per the International Mechanical Code requirements.
- A Honeywell Direct Digital Control system will monitor all utility meters and control the operation of all HVAC systems. This system will communicate with the campus system in Dykstra Hall.
- Chilled water supply, steam and condensate piping will be connected to the campus central plant distribution. Variable speed pumps will circulate chilled water to building loads. The University standard chilled water bridge and controls will be installed at the chilled water entrance to the building.
- Existing 12" main chilled water lines run along the north side of the proposed new addition. The new building addition could be served from these chilled water lines as depicted in Proposed Utility Site Plan in Appendix D.
- The University Master Plan recommends the installation of a new 1,250 ton chiller in the central plant to provide the additional capacity for the Seaton Hall building addition and other University expansions. It is assumed the Seaton Hall project would fund only its pro-rata share of this central plant chiller addition.
- The existing steam service for Seaton Hall is enters on the east side the building through some of the oldest underground steam tunnels on the campus. The existing main steam lines also serve Holtz Hall and Anderson Hall to the east and southeast of Seaton Hall. The capacity of the main steam lines is considered to be adequate but a larger tap will be required to serve the new building. The feasibility of maintaining the existing steam

service entrance must be evaluated by the design team. A possible alternative would be to reroute existing steam tunnels and lines and provide a new steam service entrance to Seaton Hall.

#### **Electrical Systems**

Electrical demand for the new addition and renovation area will be calculated after the development of a final concept design.

- A connection to the campus 12,470 volt primary distribution loop will serve a pad-mounted transformer to provide 277/480 volt, 3-phase power to the building.
- Electrical distribution equipment including switchboards, step-down transformers and branch panels will be strategically located in the building. This equipment will be manufactured by Square-D per University standard.
- Lighting systems will utilize high efficiency fixtures meeting the University standards.
- The lighting and lighting controls will be designed in accordance with the International Energy Code.
- Exit signage and emergency egress lighting will meet the requirements of the International Building Code.
- A Honeywell addressable fire alarm system will be installed in the building which will communicate with the central campus system in Dykstra Hall.

#### **Plumbing Systems**

Estimated peak plumbing loads for domestic water, sanitary sewer; storm roof drainage and natural gas will be calculated after the development of a final concept design.

- New sanitary sewer, storm sewer and water services will be extended to the building from site mains.
- The plumbing design will meet the University standards and the International Plumbing Code requirements.

#### **Fire Protection System**

Based on the concept floor plans, the peak load for the fire protection system is estimated not to exceed 700 GPM.

- A new fire protection service will be extended to the building from site mains.
- A wet fire sprinkler system will be installed to serve all building areas per NFPA 13.
- Wet standpipes will be located in stair towers per NFPA 14.
- The fire protection systems will be designed to meet the requirements of the University Standards and the City of Manhattan.

#### **Water Distribution Infrastructure**

The following are applicable for water distribution needs for the proposed site. See Appendix D for additional information.

Seaton East is currently served with a 4" domestic water service line and 6" fire line on the east side of the building. These existing lines may be sufficient to serve the new addition and Mechanics Hall as well as Seaton East. Existing fire hydrants are located near the northeast corner of Mechanics Hall and south of the Fire Department Connection (FDC) near the southeast corner of Seaton East. The fire flow for the hydrant south of the FDC, which is served by a 4" line, will be verified and a new hydrant added if necessary.

It may be prudent to extend an 8" water line from the 10" main running north-south on the east side of 17<sup>th</sup> Street to a new fire hydrant near the northeast corner of existing drive serving the central portion of the Seaton Hall complex. This water line could also be extended to the northwest corner of the new addition to provide an alternate/redundant fire line and FDC to the new addition as depicted in the Proposed Utility Site Plan in Appendix D.

#### **Sanitary Sewer Infrastructure**

The following are applicable for sanitary sewer needs for the proposed site. See Appendix D for additional information.

Mechanics Hall, Seaton Court and Seaton East are currently served by a 6" sanitary sewer line running along the east side of Seaton East and through Seaton Court. Existing sanitary sewer lines in Seaton Court will be removed during Phase I construction. There is also an 8" sanitary sewer line near the northeast corner of Mechanics Hall which might be able to serve the new addition but the elevation and reserve capacity of this line must be verified.

If the capacity of existing sanitary sewer lines are determined to be inadequate, a new sanitary sewer line could be installed from the northwest corner of new addition running west and connecting to a 10" sanitary sewer main on the west side of 17<sup>th</sup> Street as depicted in the Proposed Utility Site Plan in Appendix D.

#### **Storm Water Infrastructure**

The following are applicable for storm water needs for the proposed site. See Appendix D for additional information.

There is an existing 6" storm drain line running from north to south on the east side of Seaton Court and Seaton East. There is also a 12" storm drain line running from north to south in the central service court on the west side of the proposed new addition. The amount of impervious area is not expected to increase significantly; however, the capacity of the existing storm drainage system in this vicinity may be marginal. The proposed landscape plan shows reduced paved area and the development of a greener friendly environment including an active green roof which will allow this system to function more efficiently. The design team will evaluate the adequacy of existing storm drainage infrastructure and recently completed Storm Water Master Plan reports during the development of a final concept design.

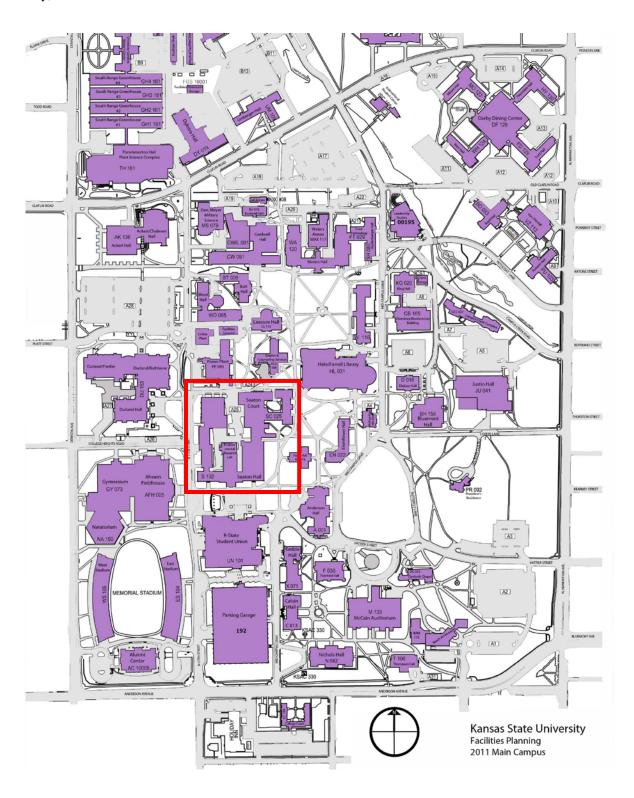
#### **Storm Water Management**

The following are applicable for storm water management needs for the proposed site. See Appendix D for additional information. The storm water management criteria is based upon current City of Manhattan regulations for limiting post-developed flows to no greater than pre-developed flows.

Pre-Developed Flows, Developed Flows and Proposed Post Developed Flows for the site will be calculated during the development of a final concept design. A vegetated roof is being considered for a portion of the roof of the new addition.

## **Programmatic Concept Design**

The following site map shows the location of Seaton Hall in the core campus. It lies north of the K-State Student Union and across N 17<sup>th</sup> Street from the Ahearn Field House. The Mechanics Hall portion of Seaton Court forms the western boundary of Coffman Commons. The others buildings defining Coffman Commons include Hale/Farrell Library, Eisenhower Hall and Holtz Hall.



The following plans and sections illustrate one design concept that is being considered for the Seaton Hall Expansion & Renovation. The floor plans illustrate a functional layout for the programmed spaces, while the sections depict the envisioned vertical vitality.



## PARALLEL | BASEMENT

## Shops

Studio

**Faculty** 

**Auditorium** 

Library

Deans

**Departmental Identity** 

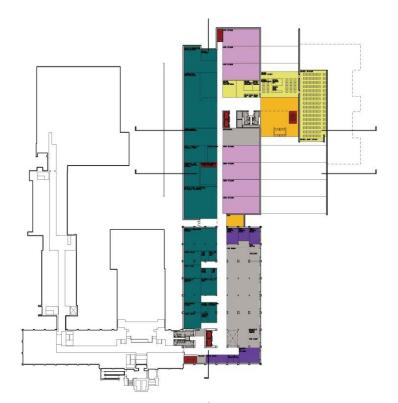
Gallery

Crit / Social

Classrooms

**Vertical Circulation** 

Landscape



## PARALLEL | FIRST FLOOR

## Shops

Studio

**Faculty** 

**Auditorium** 

Library

**Deans** 

**Departmental Identity** 

Gallery

Crit / Social

Classrooms

**Vertical Circulation** 

Landscape



## PARALLEL | SECOND FLOOR

## Shops

Studio

**Faculty** 

**Auditorium** 

Library

**Deans** 

**Departmental Identity** 

Gallery

Crit / Social

Classrooms

**Vertical Circulation** 

Landscape



## PARALLEL | THIRD FLOOR

## **Shops**

**Studio** 

**Faculty** 

**Auditorium** 

Library

**Deans** 

**Departmental Identity** 

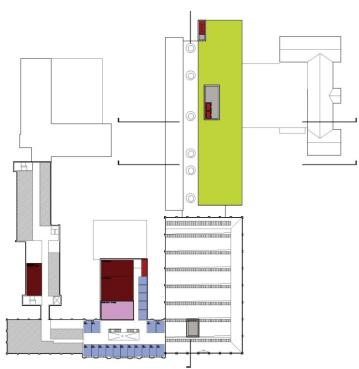
**Gallery** 

Crit / Social

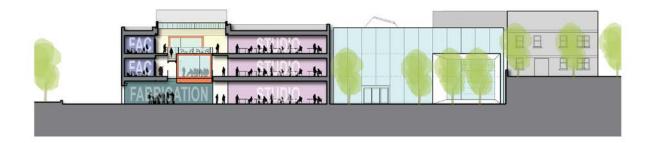
**Classrooms** 

**Vertical Circulation** 

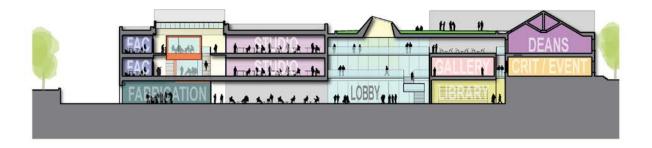
Landscape



## PARALLEL | EAST-WEST SECTION



## PARALLEL | EAST-WEST SECTION



## PARALLEL | NORTH-SOUTH SECTION





## **Project Budget and Timeline**

#### **Budget**

The estimated total project cost for this project is \$75 million.

Demolition (42,500 SF)	\$ 750,000
New Construction (110,699 SF @ \$320/SF)	\$ 35,424,000
Mechanics Hall Renovation (16,018 SF @ \$175/SF)	\$ 2,803,000
Seaton Hall Renovation (68,983 SF @ \$186/SF)	\$ 12,832,000
Landscaping & Site Improvement	\$ 750,000
Utility Infrastructure	\$ 750,000
Phased Construction	Included

Construction Cost Estimate in current year dollars \$ 53,309,000

Escalation for Inflation \$ 6,691,000

(3% per year x 4 yrs. to midpoint of construction)

Total Construction Cost \$ 60,000,000

 Contingency (10%)
 \$ 6,000,000

 Fees and Utility Relocations (10%)
 \$ 6,000,000

 Miscellaneous Costs: (5%)
 \$ 3,000,000

Includes Swing Space & Moving Expenses, Telecom and Data, Construction Testing, Hazardous Material Abatement, Site Survey, Geotechnical, etc.

Total Soft Costs and Contingency \$ 15,000,000

**Total Project Cost Estimate** 

\$ 75,000,000

#### **Funding**

The project will be funded by a combination of private gifts and bond funds to be repaid through a request for state general funds.

APDesign is considered the most highly ranked academic unit on the campus of Kansas State University. According to the most recent *DesignIntelligence* rankings, APDesign is the #1 interdisciplinary college with all three programs ranked in the top 10 (Architecture #5, Interior Architecture & Product Design #7, Landscape Architecture #3). This accomplishment, along with a governor who expects top ranked programs, has positioned APDesign and Kansas State University uniquely to ask the State of Kansas for programmatic support.

While in the initial planning stages, the *Kansas State University College of Architecture, Planning & Design Targeted Enhancement Initiative* will serve as the basis for this project. An increase in the base allocation to Kansas State University will be used specifically to increase the number of students, faculty and to address our facility needs. Along with increased tuition dollars, extramural research awards, student fees, and private, philanthropic dollars, the state dollars will be matched 1:1 and will maintain the nationally ranked programs in APDesign by attracting and retaining quality students and faculty in a 21<sup>st</sup>-century learning and research facility.

#### **Maintenance**

No additional funds will be requested for maintenance of this building. The funding for maintenance will be endowed.

Using the KBOR-FY2007 formula with the FY2013 revisions, this building will require 4.91 FTE for salaries of \$174,177. The utility rate for the new construction is figured at \$238,697 and other operating expenditures at \$38,873. The total expenses for this building are \$451,747.

#### **Timeline**

Board of Regents Approval May 2013 Legislative Authorization for Design Fees July 2013 February 2014 - May 2014 Architect/Engineer Selection Phase I - Design/Construction Documents June 2014 - April 2015 Phase I – OFPM Approval, Bidding & Contract Award May 2015 - July 2015 Phase I - Construction August 2015 - March 2017 Phase I – FF&E Installation/Occupancy April 2017 - May 2017 Phase II - Design/Construction Documents July 2016 - April 2017 May 2017 - July 2017 Phase II - OFPM Approval, Bidding & Contract Award Phase II - Construction August 2017 - April 2018 Phase II – FF&E Installation/Occupancy May 2018 - June 2018

Proposed Seaton Expansion & Renovation project schedule can be found in Appendix E.

## **Appendix A General Building Requirements**

All interior spaces should be designed for adaptability to changing technology, comfort, safety, and energy efficiency. Finishes, in general, should be durable, smooth, damage resistant, and easily cleanable.

- Floors: Smooth, non-slip, with finish appropriate for use according to Kansas State University Standards.
- Walls: Scuff and impact resistant, easily cleanable, with wall protection provided where anticipated traffic flow or equipment may cause damage.
- Ceilings: Ceiling heights to be established during design, with minimums generally as shown in this program document.
- **Doors and Hardware**: Doors to be 36" wide by 84" high for most spaces. Storage and support spaces may require doors 42" or 48" wide. Doors to be heavy duty grade, full flush style, with vision panels where appropriate and fire rated where required. All hardware to be ADA compliant and follow Kansas State University Standards.
- **Mechanical Systems**: All spaces are to be served by central heating and air conditioning systems which provide appropriate air changes and ventilation.
- Convenience Outlets: The continuing trend toward laptops, tablets, and other handheld devices requires all spaces to be evaluated for relative need for providing generous power outlets for user access. This includes informal gathering nodes along circulation corridors.
- **Lighting**: Lighting should be designed appropriate to individual space activities and needs, with multiple light level opportunities preferred.
- Day lighting: Natural daylight should be integrated as an important element throughout the building design.
- Accessibility: All floors and spaces should accommodate individuals with disabilities according to the Americans with Disabilities Act.

## **Appendix B Detailed Programmed Space Requirements**

This section provides detailed space requirements for the programmed areas as a means to define the design of the project. Listed requirements are minimums and establish a standard for each space. Space use codes are obtained from the Postsecondary Education Facilities Inventory and Classification Manual (FICM): 2006 Edition

#### **Technological Academic Spaces**

- Auditorium
- ■Auditorium Control Room
- Auditorium/Event Storage
- ■General Classrooms
- ■Technology Rich Classroom
- ■University Seminar Rooms

#### **Auditorium**

This technology-rich multipurpose academic space is intended to serve a capacity of 300 occupants with fixed seating for 120 and retractable seating for an additional 180. The retractable seating area can be used as a multipurpose room with banquet seating for  $100\pm$ . This space should have direct access to a public lobby/gathering space and be located proximate to the catering kitchen/staging area

Square Footage Requirement: 4,500 NASF IBC Occupancy Class: A-3 Assembly Space

Space Use Code: 110

#### Requirements:

- •Address occupant flow in and out of the space before and after sessions.
- ■Provide space for speaker/instructor to move around at the front of the room.
- Evaluate width/length proportions of the room for sight lines and views of instructional material
- •Front of room should accommodate the technology needs of existing instructional methods (whiteboards, dual projection, record a playback capabilities, audio support for multimedia presentations) as well as future methods.
- ■Stand-alone Creston control system for integrated AV, lighting, and shade control
- ■Design acoustics that support speaking events.
- ■Room to be equipped with wireless data points for consistent coverage
- ■Minimum front of room height to be 16'-0".
- ■Minimum rear of room height to be 9'-0".

#### **Proximity Needs**

- ■Building entry/Public gathering
- Auditorium Control Room/Storage
- ■Catering kitchen and staging area for events
- ■Toilet Rooms

#### **Auditorium Control Room**

This space serves the Auditorium with instructor-accessible media equipment controls

Square Footage Requirement: 200 NASF IBC Occupancy Class: B Business Space

Space Use Code: 115

#### Requirements:

- ■Floor to have anti-static finishes.
- ■Power and data connections for AV equipment
- ■Visual and audio connection to Auditorium

**Proximity Needs:** 

#### ■ Auditorium

#### **Auditorium/Event Storage**

This space serves the Auditorium as storage space for podia and event related moveable furniture.

Square Footage Requirement: 150 NASF IBC Occupancy Class: B Business Space

Space Use Code: 115

Requirements:

■None

Proximity Needs:

Auditorium

#### **General Classrooms**

These multipurpose academic spaces are intended to serve an average capacity of 60 occupants, with multiple sizes desired. Rooms are to be designed for multiple teaching configurations including small group workstations. They are to be located in portions of the building with easy access to primary circulation routes within the building.

Square Footage Requirement: 1,500 average NASF

IBC Occupancy Class: B Business Space

Space Use Code: 110

Requirements:

- •Address student flow in and out of the space during class changes.
- ■Provide space for instructor to move around at the front of the room.
- ■Evaluate width/length proportions of the room for sight lines and views of instructional materials.
- ■Coordinate design of the front of the room with technology requirements, to accommodate the needs of existing instructional methods (white boards, dual projection, audio support for multimedia presentations) as well as options to accommodate future technology.
- Stand-alone Creston control system for integrated AV, lighting, and shade control
- ■Design acoustics that support speaking events.
- Room to be equipped with wireless data points for consistent coverage
- ■Provide natural day lighting where possible
- ■Furniture should be moveable
- Provide multiple floor or wall mounted power and data boxes connected to wall mounted flat screens for small group projects.
- ■Minimum room height to be 10'-0".

**Proximity Needs:** 

■None

#### **Technology Rich Classroom**

This technology-rich multipurpose academic space is intended to serve 60 occupants. Its primary use will be a teaching lab for technology instruction. It will also be available for students to use as a rendering farm. It should be located in the building in proximity to primary circulation routes within the building.

Square Footage Requirement: 1,500 Average NASF

IBC Occupancy Class: B Business Space

Space Use Code: 110

Requirements:

- ■Address student flow in and out of the space during class changes.
- ■Provide space for instructor to move around at the front of the room.
- ■Evaluate width/length proportions of the room for sight lines and views of instructional materials.

- Coordinate design of the front of the room with technology requirements, to accommodate the needs of existing instructional methods (white boards, dual projection, audio support for multimedia presentations) as well as options to accommodate future technology.
- ■Stand-alone Creston control system for integrated AV, lighting, and shade control
- ■Room to be equipped with power and data at every station.
- ■Supplemental wireless data should be provided.
- ■Provide natural day lighting where possible
- ■Minimum room height to be 8'-6".

■None

#### **University Seminar Rooms**

These multipurpose academic spaces are intended to serve an average capacity of 40 occupants, and take the place of the two University seminar rooms that will be demolished to make way for the expansion of Seaton Hall. Rooms are to be designed for multiple teaching configurations. They are to be located in portions of the building with easy access to primary circulation routes within the building.

Square Footage Requirement: 1,000 Average NASF

IBC Occupancy Class: B Business Space

Space Use Code: 110

#### Requirements:

- ■Address student flow in and out of the space during class changes.
- •Provide space for instructor to move around at the front of the room.
- Evaluate width/length proportions of the room for sight lines and views of instructional materials.
- Coordinate design of the front of the room with technology requirements, to accommodate the needs of existing instructional methods (white boards, projection, audio support for multimedia presentations) as well as options to accommodate future technology.
- Stand-alone Creston control system for integrated AV, lighting, and shade control
- ■Design acoustics that support speaking events.
- ■Room to be equipped with wireless data points for consistent coverage
- ■Provide natural day lighting where possible
- ■Furniture should be moveable
- Provide multiple floor or wall mounted power and data boxes connected to wall mounted flat screens for small group projects.
- ■Minimum room height to be 9'-0".

Proximity Needs:

■None

#### Specialty Instruction, Research and Support Spaces

- ■Design Studios
- ■ENVD Design Studios
- ■PhD Studio
- ■Research Studio
- ■Flex Studio
- **■**Crit Rooms
- ■Product Design Mock-up Studio
- ■Lighting Lab
- ■Media Studio
- ■Online Content Recording Room
- ■Distance Education Monitoring/Control

#### **Design Studios**

These 24-hour multipurpose academic spaces are intended to serve a maximum capacity of 18 students at individual workstations. The design studios are the primary laboratory for all design students. Rooms must address the need for independent student research as well as formal and informal instruction. Flexible wall and furniture systems are desirable. Rooms will have significant plug loads and bandwidth requirements as each workstation will be equipped with at least one power desktop computer.

Square Footage Requirement: 1,350 NASF IBC Occupancy Class: B Business Space

Space Use Code: 110

Requirements:

- ■24 hour student access is required. Access control security system with record keeping is recommended.
- ■Room proportions should accommodate multiple room configurations
- AV requirements should include provisions for projection, wall mounted flat panel monitor and teacher controlled workstation.
- ■Walls between studios should have a self-sealing tackable surface and be of a flexible design to allow for studio growth and contraction over time.
- •Walls between the studio and corridor should be transparent with lockable access points.
- Acoustic separation is desirable between studios.
- ■Rooms to be equipped with wireless data points for consistent coverage
- ■Provide multiple floor or wall mounted power and data boxes.
- ■Provide natural day lighting where possible
- ■Furniture should be moveable.
- ■Minimum room height to be 10'-0".

#### Proximity Needs:

- **■**Crit Rooms
- ■Clean-up Rooms
- ■Plot Club

#### **ENVD Design Studios**

These 24-hour multipurpose academic spaces are intended to serve a maximum capacity of 20 students at individual workstations. The design studios are the primary laboratory for all design students. Rooms must address the need for independent student research as well as formal and informal instruction. Flexible wall and furniture systems are desirable.

Square Footage Requirement: 1,200 NASF IBC Occupancy Class: B Business Space

Space Use Code: 110

#### Requirements:

■24 hour student access is required. Access control security system with record keeping is recommended.

- ■Room proportions should accommodate multiple room configurations
- AV requirements should include provisions for projection, wall mounted flat panel monitor and teacher controlled workstation.
- ■Walls between studios should have a self-sealing tackable surface and be of a flexible design to allow for studio growth and contraction over time.
- •Walls between the studio and corridor should be transparent with lockable access points.
- Acoustic separation is desirable between studios.
- ■Rooms to be equipped with wireless data points for consistent coverage
- ■Provide multiple floor or wall mounted power and data boxes.
- ■Provide natural day lighting where possible
- ■Furniture should be moveable.
- ■Minimum room height to be 10'-0".

- ■Crit Rooms
- ■PhD Studios
- ■Clean-up Rooms

#### **PhD Studio**

This 24-hour multipurpose academic space is intended to serve a maximum capacity of 20 students at individual workstations. The studio is the primary research laboratory for all PhD design students. Room design and layout must accommodate independent research as well as private meetings with students. Room layout should include a separately partitioned office for meetings of 1-4 people.

Square Footage Requirement: 1,350 NASF IBC Occupancy Class: B Business Space

Space Use Code: 110

#### Requirements:

- ■24 hour student access is required. Access control security system with record keeping is recommended.
- AV requirements should include provisions for projection, wall mounted flat panel monitor and teacher controlled workstation.
- ■Walls between studios should have a self-sealing tackable surface.
- ■Walls between the studio and corridor should be transparent with lockable access points.
- Acoustic separation is desirable between studios.
- ■Rooms to be equipped with wireless data points for consistent coverage
- ■Provide multiple floor or wall mounted power and data boxes.
- ■Provide natural day lighting where possible
- ■Minimum room height to be 10'-0".

#### Proximity Needs:

- ■ENVD Design Studios
- ■PhD Coordinator

#### **Research Studio**

This 24-hour multipurpose academic space is intended to serve as research incubator space for faculty and/or student based projects. Current research projects include MLab and fluvial geomorphic survey research as well as planned entrepreneurship programs. Room layout is based on a Design Studio module and could accommodate several workstations, private offices and shared conference area. Configuration may change over time as the nature of the research changes.

Square Footage Requirement: 1,350 NASF IBC Occupancy Class: B Business Space

Space Use Code: 110

#### Requirements:

■24 hour student access is required. Access control security system with record keeping is recommended.

- AV requirements should include provisions for projection, wall mounted flat panel monitor and teacher controlled workstation.
- ■Walls between studios should have a self-sealing tackable surface.
- •Walls between the studio and corridor should be transparent with lockable access points.
- Acoustic separation is desirable between studios.
- ■Rooms to be equipped with wireless data points for consistent coverage
- ■Provide multiple floor or wall mounted power and data boxes.
- ■Provide natural day lighting where possible
- ■Minimum room height to be 10'-0".

■None

#### Flex Studio

This 24-hour multipurpose academic space is intended to serve a maximum capacity of 20 students at individual workstations. Room layout is based on a Design Studio module and can accommodate multiple uses including events, special research, design-build fabrication and design studio.

Square Footage Requirement: 1,350 NASF IBC Occupancy Class: B Business Space

Space Use Code: 110

#### Requirements:

- ■24 hour student access is required. Access control security system with record keeping is recommended.
- AV requirements should include provisions for projection, wall mounted flat panel monitor and teacher controlled workstation.
- ■Walls between studios should have a self-sealing tackable surface.
- •Walls between the studio and corridor should be transparent with lockable access points.
- Acoustic separation is desirable between studios.
- ■Rooms to be equipped with wireless data points for consistent coverage
- ■Provide multiple floor or wall mounted power and data boxes.
- ■Provide natural day lighting where possible
- ■Minimum room height to be 10'-0".

Proximity Needs:

■Design Studios or Fabrication Labs

#### **Crit Rooms**

These 24-hour multipurpose academic spaces are intended to serve an average capacity of 30 occupants, with multiple sizes desired. Primary function is to accommodate formal and informal design reviews/pin-ups/critiques which can range in size from 2 to 50+ participants. Crit Rooms are to be located along primary circulation routes within the building.

Square Footage Requirement: 400 NSF, 600 NSF and 800 NASF

IBC Occupancy Class: B Business Space

Space Use Code: 110

#### Requirements:

- ■Evaluate width/length proportions of the room for sight lines and views of instructional materials.
- ■24 hour student access is required. Access control security system with record keeping is recommended.
- ■AV requirements should include provisions for projection, wall mounted flat panel monitor(s) and control station, audio support, as well as provisions to accommodate future technology.
- ■Walls should have self-sealing tackable surfaces.
- ■Transparency between crit rooms and corridor is desirable.
- ■Rooms to be equipped with wireless data points for consistent coverage
- ■Provide multiple wall mounted power and data boxes.
- ■Minimum room height to be 9'-0".

- ■Design Studios or Fabrication Labs
- ■Building Lobbies or Primary circulation paths

#### **Product Design Mock-up Studio**

This 24-hour studio is intended to serve as an accessory space to the IAPD Design Studios for the fabrication of full scale mock-ups.

Square Footage Requirement: 400 NASF IBC Occupancy Class: B Business Space

Space Use Code: 110

#### Requirements:

- ■24 hour student access is required. Access control security system with record keeping is recommended.
- ■AV requirements should include provisions for projection
- ■Walls should have self-sealing tackable surfaces.
- ■Transparency between studios and corridor is desirable.
- Rooms to be equipped with wireless data points for consistent coverage
- ■Provide multiple wall mounted power and data boxes.
- ■Minimum room height to be 9'-0".

Proximity Needs:

■Design Studios

#### **Lighting Lab**

The Lighting Lab is both an instructional classroom as well as a research studio for the study of light sources and their impact on the built environment. The room must accommodate mockups, student research and formal instruction. The Lab will have multiple light sources installed along the perimeter walls and hung from the ceiling. Provision for re-lamping is required. The Lab will require an above average number of independently circuited electrical outlets.

Square Footage Requirement: 550 NASF IBC Occupancy Class: B Business Space

Space Use Code: 110

#### Requirements:

- ■Daylight is not desirable.
- ■Rooms to be equipped with wireless data points for consistent coverage
- ■Provide multiple walls and ceiling mounted, independently circuited power outlets.
- ■Minimum room height to be 9'-0".

#### Proximity Needs:

■Design Studios

#### **Media Studio**

The Media Studio is both an instructional classroom as well as an independent design lab for student use in the visualization of their studio projects. The room must accommodate an instructor with 1-4 students working together. Ample work surfaces and computer stations are required as is the ability to fit out the space for future use as a multidisciplinary computer graphic visualization research and educational facility (CAVE environment). The CAVE is a 3-D, immersive, multi-person, room-sized, high-resolution environment where students and their instructors can be surrounded and experience these complex structures together. This room should also provide storage for the mobile heliodon.

Square Footage Requirement: 450 NASF IBC Occupancy Class: B Business Space

Space Use Code: 110

#### Requirements:

- ■Daylight is not desirable.
- ■Rooms to be equipped with wired and wireless data points for consistent coverage
- ■Provide multiple independently circuited power outlets.
- ■Minimum room height to be 9'-0".

#### Proximity Needs:

- ■Design Studios
- ■Online Content Recording Room

#### **Online Content Recording Room**

This space is designed to serve 1-2 occupants in the generation of original content for use in online instruction, TED events or as part of the generation of advanced visualization of design studio projects. The room must have advanced sound and lighting controls. AV equipment for both visual and audio recording is required.

Square Footage Requirement: 150 NASF IBC Occupancy Class: B Business Space

Space Use Code: 110

#### Requirements:

- ■Daylight is not desirable.
- ■Rooms to be equipped with wired and wireless data points for consistent coverage
- •Provide multiple independently circuited power outlets to coordinate with AV equipment.
- ■Minimum room height to be 9'-0".

#### Proximity Needs:

- ■Design Studios
- ■Media Studio

#### **Distance Education Monitoring/Control**

This space should accommodate two occupants in a typical two-person office setting. It should be organized to facilitate a conversation zone at the door and two concentrated work areas.

Square Footage Requirement: 150 NASF IBC Occupancy Class: B Business Space

Space Use Code: 110

#### Requirements:

- ■Daylight is desirable
- ■Rooms to be equipped with wireless data points for consistent coverage
- ■Minimum room height to be 9'-0".

#### Proximity Needs:

■Online Content Recording Facilities

#### **Fabrication Labs**

- ■Metal Welding and Machining
- ■Metal Storage
- ■Wood Fabrication
- ■Wood Storage
- ■Fabrication Lab Storage
- ■Fabrication Lab Manager
- ■Fabrication Lab Library
- ■Collaborative Office/Workroom
- ■CNC Router/Digital Fabrication
- ■Digital Fabrication Control Room
- ■Model Making
- ■Glue/Display/Vacuum Form
- ■Finishing Lab/Spray Booths
- ■Upholstery Studio
- ■Laser Club/3D Print Lab
- ■Plot Club
- ■Plot Club Storage
- ■Center for Excellence in Mobile Interiors
- ■Fifth Year Furniture Design Thesis Studio
- ■Interdisciplinary Materials Library
- ■Printmaking Shop
- ■Glass Studio
- ■LARCP Materials Testing Area and Fabrication Lab
- ■Fluvial Trailer Storage
- ■Exterior Fabrication Yard

#### **Fabrication Labs**

These spaces are for use by College students and faculty who have been formally trained on the equipment by the Fabrication Lab staff. These spaces accommodate a variety of functions and equipment including digitally controlled fabrication tools. Some spaces house flammable materials and must meet the stringent code requirements of high hazard occupancies (Metal welding). Most of the equipment is heavy and must be located at grade or in a basement. The largest/heaviest equipment includes the 5,500# CNC router, 4,000# metal machining lathe and 3,500# wood milling machine. Space must be provided for servicing of large scale equipment and loading/deliveries of large scale materials. Compressed air systems, dust collection systems and robust mechanical, electrical and fire suppression systems are anticipated. Specific system selection and layouts are to be determined upon final space and equipment layout.

Square Footage Requirement: 19,630 NASF IBC Occupancy Class: B Business Space

Space Use Code: 210

#### Requirements:

- Natural day lighting is desirable.
- ■Provide appropriate mechanical, electrical and fire suppression systems.
- ■Provide durable finishes throughout.
- ■Provide wireless access points for continuous coverage.
- ■Transparency between Fabrication Labs and primary public circulation is desirable.

#### **Proximity Needs:**

- ■Design Studios
- ■Primary public circulation

Specific program needs for individual spaces is provided below:

#### Metal Fabrication Lab - Welding and Machining

This space contains equipment for metal fabrication including separate areas for welding and machining. Provision should be made to accommodate a 4,000# lathe.

Square Footage Requirement: 1,700 NASF

IBC Occupancy Class: F-1 Moderate-Hazard Factory Industrial

Space Use Code: 210

Requirements:

- ■Provide adequate mechanical and electrical systems throughout.
- ■Provide natural day lighting where possible.
- ■Provide rated partitions for flammable materials as required by code.

**Proximity Needs:** 

- ■Metal Storage.
- The weight of some metal machining equipment requires this lab to be located on slab on grade.

#### **Metal Storage**

This room is for the storage of materials for use in the metal fabrication lab including storage of flammable materials which must be kept in secure fireproof storage room that meets the code requirements of high hazard occupancy.

Square Footage Requirement: 300 NASF

IBC Occupancy Class: S-2 Low-Hazard Storage

Space Use Code: 210

Requirements:

■Provide rated partitions and fire suppression systems for flammable materials as required by code.

**Proximity Needs:** 

- ■Metal Fabrication Lab Welding and Machining
- ■Locate close to building service entrance for material deliveries.

#### **Wood Fabrication**

This room is for the storage of materials for use in the wood fabrication lab including a 3,500# milling machine.

Square Footage Requirement: 5,250 NASF

IBC Occupancy Class: F-1 Moderate-Hazard Factory Industrial

Space Use Code: 210

Requirements:

- ■Provide adequate mechanical and electrical systems throughout.
- The weight of some metal machining equipment requires this lab to be located on slab on grade.

Proximity Needs:

■Wood Fabrication.

#### **Wood Storage**

This room is for the storage of materials for use in the wood fabrication lab.

Square Footage Requirement: 1,000 NASF

IBC Occupancy Class: S-1 Moderate-Hazard Storage

Space Use Code: 215

Requirements:

■None.

**Proximity Needs:** 

- ■Wood Fabrication.
- ■Locate close to building service entrance for material deliveries.

#### **Fabrication Lab Storage**

This room is for the storage of tools, parts and equipment for use in the Fabrication Labs

Square Footage Requirement: 300 NASF

IBC Occupancy Class: S-1 Moderate-Hazard Storage

Space Use Code: 215

Requirements:

■None.

Proximity Needs:

- ■CNC Router/Digital Fabrication
- ■Locate close to building service entrance for material deliveries.

#### **Fabrication Lab Manager**

This space is a single occupancy office for use by the Fabrication Lab Manager. Visual transparency between this office and the Fabrication lab is desirable. his office is to accommodate two to three occupants in a typical one-person office setting. In general, offices should be organized to facilitate a conversation zone at the door, a collaborative space for two to three people, and a concentrated work area.

Square Footage Requirement: 150 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

Requirements:

- ■Natural day lighting is desirable.
- ■Operable windows are desirable.
- •Acoustical separation from adjacent offices and surrounding spaces.
- ■Transparency is desirable between the office and the fabrication labs.
- ■Minimum room height to be 9'-0".

Proximity Needs:

■Fabrication Labs

#### **Fabrication Lab Library**

This space is for the storage of equipment manuals and should be accessible to all users of the Fabrication labs. This space may be collocated with the Collaborative Office/Workroom.

Square Footage Requirement: 80 NASF IBC Occupancy Class: B Business Space

Space Use Code: 410

Requirements:

■None.

Proximity Needs:

- ■Fabrication Labs
- ■Shared Office/Workroom

#### Collaborative Office/Workroom

This is a shared office for three full time staff and one part time assistant. The office layout should have four independent workstations and a shared collaborative worktable.

Square Footage Requirement: 450 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

Requirements:

- Natural day lighting is desirable.
- ■Operable windows are desirable.
- •Acoustical separation from fabrication labs and other adjacent spaces.
- ■Minimum room height to be 9'-0".

- ■Fabrication Labs
- ■Fabrication Lab Manager
- ■Fabrication Lab Library

#### **CNC Router/Digital Fabrication**

This space contains a 5,500# CNC router. Square Footage Requirement: 1,500 NASF

IBC Occupancy Class: F-1 Moderate-Hazard Factory Industrial

Space Use Code: 210

Requirements:

- ■Provide adequate mechanical and electrical systems throughout.
- ■Provide natural day lighting where possible.

Proximity Needs (CNC Router):

■The weight of the CNC router requires this lab to be located on slab on grade.

Proximity Needs (Digital Control Room):

- ■Digital Fabrication Control Room
- ■Fabrication Lab Manager
- ■Fabrication Storage

#### **Digital Fabrication Control Room**

This room contains the computer equipment necessary to run the CNC router. This room must be located adjacent to the CNC Router/Digital Fabrication Lab. There should be both physical and visual connection between these two spaces.

Square Footage Requirement: 1,500 NASF IBC Occupancy Class: B Business Space

Space Use Code: 210

Requirements:

- ■Provide hardwired power and data outlets.
- ■Provide visual access to CNC Router/Digital Fabrication Lab from the Control Room.

Proximity Needs:

■CNC Router/Digital Fabrication.

#### **Model Making**

This space is available for student use 24 hours a day and is one of only a few fabrication lab spaces that do not require faculty oversight during use. This space contains hand equipment and some light power tools. This space could be located near Design Studios and does not have to be part of the Fabrication Lab Suite.

Square Footage Requirement: 950 NASF

IBC Occupancy Class: F-2 Low-Hazard Factory Industrial

Space Use Code: 210

Requirements:

- ■24 hour student access is required. Access control security system with record keeping is recommended.
- ■Provide adequate mechanical and electrical systems throughout.
- ■Provide natural day lighting where possible.

■Design Studios

#### Glue/Display/Vacuum Form

This space is available for student use 24 hours a day and is one of only a few fabrication lab spaces that do not require faculty oversight during use. This space contains hand equipment, some light power tools and vacuum forming machine. This space could be located near Design Studios and does not have to be part of the Fabrication Lab Suite.

Square Footage Requirement: 700 NASF

IBC Occupancy Class: F-2 Low-Hazard Factory Industrial

Space Use Code: 210

Requirements:

- ■24 hour student access is required. Access control security system with record keeping is recommended.
- ■Provide adequate mechanical and electrical systems throughout.
- ■Provide natural day lighting where possible.

Proximity Needs:

■Design Studios

#### **Finishing Lab/Spray Booths**

This space houses a finishing lab including spray booths. Provide proper ventilation to control the fumes/odor generated by using the spray booth and the chemicals used in finishing processes.

Square Footage Requirement: 1,000 NASF

IBC Occupancy Class: F-1 Moderate-Hazard Factory Industrial

Space Use Code: 215

Requirements:

■ Provide adequate mechanical and electrical systems throughout.

Proximity Needs: Fabrication Labs

■Finishing Lab/Spray Booths

#### **Upholstery Studio**

This space is available for student use 24 hours a day and is one of only a few fabrication lab spaces that do not require faculty oversight during use. This space contains industrial sewing machines and layout space for student projects. This space could be located near Design Studios and does not have to be part of the Fabrication Lab Suite.

Square Footage Requirement: 250 NASF

IBC Occupancy Class: F-1 Moderate-Hazard Factory Industrial

Space Use Code: 215

pace osc code. 213

Requirements:

- ■24 hour student access is required. Access control security system with record keeping is recommended.
- ■Provide natural day lighting where possible.

Proximity Needs:

■Design Studios

#### Laser Club/3D Print Lab

This is a student run club that should be located proximate to the Design Studios. This secure environment will house several laser cutters and 3D printers for student use. Access is by programmable proximity card or keypad activated lock. Provide rated partitions as required by code and proper ventilation for odor control.

Square Footage Requirement: 400 NASF

IBC Occupancy Class: F-1 Moderate-Hazard Factory Industrial

Space Use Code: 215

Requirements:

- ■Secure environment.
- ■Adequate power and data outlets for up to eight pieces of equipment.
- ■Provide rated partitions as required by code
- Provide proper ventilation for odor control.

Proximity Needs:

■Plot Club Storage

#### **Plot Club**

This is a student run club that should be located proximate to the Design Studios. This secure environment will house several large scale color and black/white plotters for student use. Access is by programmable proximity card or keypad activated lock.

Square Footage Requirement: 500 NASF IBC Occupancy Class: B Business Space

Space Use Code: 215

Requirements:

- ■Secure environment.
- Adequate power and data outlets for up to eight pieces of equipment.

Proximity Needs: 
•Plot Club Storage

# Plot Club Storage

This space serves the Plot Club as storage space for paper and ink/toner.

Square Footage Requirement: 200 NASF IBC Occupancy Class: B Business Space

Space Use Code: 215

Requirements:

■Secure environment.

Proximity Needs:

■Plot Club

#### **Center for Excellence in Mobile Interiors**

This 24-hour multipurpose space is intended to serve as a design studio for the study of mobile interior environments. Full scale mockups on an airplane fuselage will be constructed in this space. This space may also serve as a design studio for other projects including design-build projects. A high-bay is desirable. Rooms must address the need for independent student research as well as formal and informal instruction. Flexible wall and furniture systems are desirable. Rooms will have significant plug loads and bandwidth requirements as each workstation will be equipped with at least one power desktop computer.

Square Footage Requirement: 2,000 NASF IBC Occupancy Class: B Business Space

Space Use Code: 220

#### Requirements:

- ■24 hour student access is required. Access control security system with record keeping is recommended.
- ■Room proportions should accommodate multiple room configurations
- AV requirements should include provisions for projection, wall mounted flat panel monitor and teacher controlled workstation.

- •Walls between studios should have a self-sealing tackable surface and be of a flexible design to allow for studio growth and contraction over time.
- ■Walls between the studio and corridor should be transparent with lockable access points.
- Acoustic separation is desirable between studios.
- ■Rooms to be equipped with wireless data points for consistent coverage
- ■Provide multiple floor or wall mounted power and data boxes.
- ■Provide natural day lighting where possible
- ■Furniture should be moveable.
- •High bay for all or a portion of this room is desirable.

# Proximity Needs:

- ■Design Studios
- ■Flex Studio
- ■Fabrication Labs

# Fifth Year Furniture Design Studio

This 24-hour multipurpose space is intended to serve as a design studio for the thesis year of IAPD Furniture Design students. This room should be located adjacent to the Fabrication Studios and should support up to 8 students at individual workstations. Rooms will have significant plug loads and bandwidth requirements as each workstation will be equipped with at least one power desktop computer.

Square Footage Requirement: 800 NASF IBC Occupancy Class: B Business Space

Space Use Code: 110

#### Requirements:

- ■24 hour student access is required. Access control security system with record keeping is recommended.
- ■Walls between the studio and corridor should be transparent with lockable access points.
- •Acoustic separation between the studio and corridor is desirable.
- ■Rooms to be equipped with wireless data points for consistent coverage
- ■Provide multiple floor or wall mounted power and data boxes.
- ■Provide natural day lighting where possible
- ■Furniture should be moveable.

# Proximity Needs:

■Fabrication Labs

# **Interdisciplinary Materials Library**

This space consolidates three separate materials libraries into a single College-wide amenity. The space is a lending library that contains architectural material samples and product information.

Square Footage Requirement: 800 NASF IBC Occupancy Class: B Business Space

Space Use Code: 410

#### Requirements:

- ■Walls between the studio and corridor should be transparent with lockable access points.
- ■Provide natural day lighting where possible
- ■Adequate floor and wall area should be provided for materials shelving/storage system.

## Proximity Needs:

■Design Studios

#### **Printmaking Shop**

This space contains printing presses and is for student and faculty use. It should be located adjacent to the Glass Studio where the two spaces can share a common layout area. Provide secure storage for flammable solvents used in the printmaking process. Proper ventilation is required to address odors caused by the printmaking process.

Square Footage Requirement: 400 NASF

IBC Occupancy Class: F-2 Low-Hazard Factory Industrial

Space Use Code: 210

Requirements:

Provide natural day lighting where possible.Provide rated partitions as required by code.

■ Provide proper ventilation for odor control.

Proximity Needs: •Glass Studio

# **Glass Studio**

This space contains glass kilns for student and faculty use. It should be located adjacent to the Printmaking Shop where the two spaces can share a common layout area. Provide rated partitions as required by code

Square Footage Requirement: 150 NASF

IBC Occupancy Class: F-2 Low-Hazard Factory Industrial

Space Use Code: 210

Requirements:

■Provide rated partitions as required by code.

Proximity Needs: Printmaking Shop

# **LARCP Materials Testing Area and Fabrication Lab**

This space contains materials and equipment for the testing of landscape materials including both soft- and hard-scape materials. This space should be located with direct access to the exterior fabrication lab. Access to a hose bib is desirable.

Square Footage Requirement: 500 NASF

IBC Occupancy Class: F-2 Low-Hazard Factory Industrial

Space Use Code: 210

Requirements: Provide hose bib.

Proximity Needs:

■Exterior Fabrication Area

#### Fluvial Trailer Storage

This room is for the temporal storage of equipment normally located on the Fluvial trailer.

Square Footage Requirement: 150 NASF IBC Occupancy Class: B Business Space

Space Use Code: 215

Requirements:

■None.

Proximity Needs:

■Locate close to building service entrance.

# **Exterior Fabrication Yard**

This exterior space should be located adjacent to the primary fabrication labs and serves as overflow fabrication space for large scale projects. The exterior fabrication area should be located such that it is in shade or a shade structure should be provided.

Square Footage Requirement: 4,000 NASF IBC Occupancy Class: None – Exterior Space

Space Use Code: 110

Requirements:

■Exterior rated power outlets should be provided.

Proximity Needs: Fabrication Labs.

# **Academic Support Spaces**

- ■Faculty Offices
- ■Faculty/Staff Lounge
- ■Faculty Mailboxes
- ■OZ Journal Reception/Workroom
- ■OZ Journal Office
- ■OZ Journal Merchandise Storage

# **Faculty Offices**

These spaces should be in groups near Design Studios and informal student gathering areas to facilitate interactions between students and faculty. They are to accommodate two to three occupants in a typical one-person office setting. In general, offices should be organized to facilitate a conversation zone at the door, a collaborative space for two to three people, and a concentrated work area.

Square Footage Requirement: 150 NSF (Non-tenure track faculty), 175 NASF (Tenure track faculty)

IBC Occupancy Class: B Business Space

Space Use Code: 310

Requirements:

- Natural day lighting is desirable.
- ■Operable windows are desirable.
- •Acoustical separation from adjacent offices and surrounding spaces.
- ■Minimum room height to be 9'-0".

Proximity Needs:

- ■Design Studios
- ■Informal student gathering areas

# Faculty/Staff Lounge

This shared resource provides a place for faculty and staff to meet that is outside of the domain of the students. It serves as kitchenette, lounge, and hosts copy/fax equipment and faculty mailboxes.

Square Footage Requirement: 350 NASF IBC Occupancy Class: B Business Space

Space Use Code: 315

Requirements:

- ■Natural day lighting is desirable.
- ■Operable windows are desirable.
- ■Built-in kitchenette furnishings, including single compartment sink with running hot and cold water.
- ■Dedicated power for microwave oven, coffee machine and full sized refrigerator.
- ■Counter-height power.
- ■Odor separation from surrounding spaces.
- ■Acoustical separation from surrounding spaces.

Proximity Needs:

- ■Faculty Offices
- ■Administrative Offices

# **Faculty Mailboxes**

This shared resource is located in or adjacent to the Faculty/Staff Break Room.

Square Footage Requirement: 50 NASF IBC Occupancy Class: B Business Space

Space Use Code: 315

Requirements:

■None

Proximity Needs:

■Faculty/Staff Break Room

# **OZ Journal Reception/Workroom**

These spaces are to accommodate up to 4 occupants in a small workroom environment. This room will serve as a reception area for guest as well as a flexible work area for production and sales. The OZ Journal office suite should be located proximate to primary paths of travel and nearby Design Studios.

Square Footage Requirement: 175 NASF IBC Occupancy Class: B Business Space

Space Use Code: 315

Requirements:

- ■Natural day lighting is desirable.
- ■Transparency between the corridor and OZ Reception is desirable.
- Acoustical separation from surrounding spaces.
- ■Ample wall space with self-sealing tackable surfaces.
- ■Space directly outside of OZ Reception should be provided for promotion and display of current and past journals.
- ■Minimum room height to be 9'-0".

Proximity Needs:

- ■OZ Journal Office
- ■OZ Journal Merchandise Storage
- ■Design Studios
- ■Primary public circulation

#### **OZ Journal Office**

This office serves as the primary workspace of the OZ Journal student editors. It provides a place to meet with staff, work in a quiet location and do business on behalf of the Journal. The office should accommodate two to three occupants in a two-person office setting. In general, offices should be organized to facilitate a conversation zone at the door, two individual workstations and additional seating for guests.

Square Footage Requirement: 175 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

Requirements:

- ■Natural day lighting is desirable.
- ■Operable windows are desirable.
- •Acoustical separation from adjacent offices and surrounding spaces.
- ■Minimum room height to be 9'-0".

Proximity Needs:

- ■OZ Journal Reception/Workroom
- ■OZ Journal Merchandise Storage

# **OZ Journal Merchandise Storage**

This space serves the OZ Journal as storage space for files as well as current and past issues of the Journal.

Square Footage Requirement: 80 NASF IBC Occupancy Class: B Business Space

Space Use Code: 115

Architectural Program | Seaton Hall Expansion & Renovation Kansas State University

ハロロ	$\mathbf{n}$	ments	١.
			•

■None

Proximity Needs:

■Auditorium

# **Academic Departmental Administrative Support Spaces**

- ■Departmental Administrative Reception
- ■Administrative Assistant
- ■Student Assistant
- ■Office Manager
- ■Project Coordinator
- ■Academic Advisor
- Associate Department Head
- ■Department Head
- ■Departmental Conference Room
- ■Copy/Fax Room
- ■Departmental Office Storage
- Accreditation Archive

# **Departmental Administrative Reception**

These spaces are to accommodate 1-4 occupants in a casual seating/lounge area while they wait to visit the department administrators.

Square Footage Requirement: 100 NASF, 200 NASF

IBC Occupancy Class: B Business Space

Space Use Code: 315

#### Requirements:

- Natural day lighting is desirable.
- ■Transparency between the corridor and Reception is desirable.
- ■Acoustical separation from surrounding spaces.
- ■Ample wall space for showcasing student and faculty work/art
- ■Space directly outside of Reception should be provided for departmental announcements/information.
- ■Minimum room height to be 9'-0".

#### **Proximity Needs:**

- ■Administrative Assistant
- ■Student Assistant
- ■Departmental Conference Room

## **Administrative Assistant**

This space should accommodate one occupant in open office seating with full view of Reception and Departmental Office entrance.

Square Footage Requirement: 100 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

## Requirements:

- Natural day lighting is desirable.
- ■Operable windows are desirable.
- ■Open office seating.
- Acoustical separation from surrounding spaces.
- ■Adequate power and data outlets.
- ■Minimum room height to be 9'-0".

- Reception
- ■Student Assistant
- ■Departmental Offices
- ■Departmental Conference Room

- ■Copy/Fax Room
- ■Departmental Office Storage

## **Student Assistant**

This space should accommodate one occupant in open office seating with full view of Reception and Departmental Office entrance.

Square Footage Requirement: 100 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

# Requirements:

- ■Natural day lighting is desirable.
- ■Operable windows are desirable.
- ■Open office seating.
- Acoustical separation from surrounding spaces.
- ■Adequate power and data outlets.
- ■Minimum room height to be 9'-0".

# **Proximity Needs:**

- Reception
- ■Administrative Assistant
- ■Departmental Offices
- ■Departmental Conference Room
- ■Copy/Fax Room
- ■Departmental Office Storage

# Office Manager

This space should accommodate one occupant in open office seating with full view of Reception and Departmental Office entrance.

Square Footage Requirement: 100 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

#### Requirements:

- Natural day lighting is desirable.
- ■Operable windows are desirable.
- ■Open office seating.
- Acoustical separation from surrounding spaces.
- ■Adequate power and data outlets.
- ■Minimum room height to be 9'-0".

# Proximity Needs:

- Reception
- ■Student Assistant
- ■Departmental Offices
- ■Departmental Conference Room
- ■Copy/Fax Room
- ■Departmental Office Storage

## **Project Coordinator**

This space should accommodate two to three occupants in a typical one-person office setting. In general, offices should be organized to facilitate a conversation zone at the door, a collaborative space for two to three people, and a concentrated work area.

Square Footage Requirement: 150 NASF

IBC Occupancy Class: B Business Space

Space Use Code: 310

#### Requirements:

- Natural day lighting is desirable.
- ■Operable windows are desirable.
- Acoustical separation from adjacent offices and surrounding spaces.
- ■Adequate power and data outlets.
- ■Minimum room height to be 9'-0".

#### **Proximity Needs:**

- ■Departmental Offices
- ■Departmental Conference Room
- ■Copy/Fax Room
- ■Departmental Office Storage

## **Academic Advisor**

This space should accommodate two to three occupants in a typical one-person office setting. In general, offices should be organized to facilitate a conversation zone at the door, a collaborative space for two to three people, and a concentrated work area.

Square Footage Requirement: 175 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

# Requirements:

- ■Natural day lighting is desirable.
- ■Operable windows are desirable.
- •Acoustical separation from adjacent offices and surrounding spaces.
- ■Adequate power and data outlets.
- ■Minimum room height to be 9'-0".

#### Proximity Needs:

- ■Departmental Offices
- ■Departmental Conference Room
- ■Copy/Fax Room
- ■Departmental Office Storage

# **Associate Department Head**

This space should accommodate two to three occupants in a typical one-person office setting. In general, offices should be organized to facilitate a conversation zone at the door, a collaborative space for two to three people, and a concentrated work area.

Square Footage Requirement: 175 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

#### Requirements:

- Natural day lighting is desirable.
- ■Operable windows are desirable.
- •Acoustical separation from adjacent offices and surrounding spaces.
- ■Adequate power and data outlets.
- ■Minimum room height to be 9'-0".

- ■Departmental Offices
- ■Departmental Conference Room
- ■Copy/Fax Room

# ■Departmental Office Storage

# **Department Head Offices**

This space should accommodate two to four occupants in a typical one-person office setting. In general, they should be organized to facilitate a conversation zone at the door, a collaborative space for two to four people, and a concentrated work area.

Square Footage Requirement: 225 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

# Requirements:

- ■Natural day lighting is desirable.
- ■Operable windows are desirable.
- Acoustical separation from adjacent offices and surrounding spaces.
- ■Adequate power and data outlets.
- ■Minimum room height to be 9'-0".

# **Proximity Needs:**

- ■Departmental Offices
- ■Departmental Conference Room
- ■Copy/Fax Room
- ■Departmental Office Storage

# **Departmental Conference Room**

These spaces are to be used for formal meetings, training, and teleconference activities. The spaces are to be located along primary building circulation paths to permit additional use as seminar space. Smaller rooms should accommodate up to 12 occupants and larger rooms up to 20 occupants around a conference table. Additional seating along perimeter walls should be provided.

Square Footage Requirement: 300, 500 NASF

IBC Occupancy Class: B Business Space

Space Use Code: 350

# Requirements:

- ■Natural day lighting is desirable.
- ■Operable windows are desirable.
- Voice, data and power to accommodate a variety of multimedia presentations, including teleconferences and video conferences.
- ■Dimmable lighting.
- ■Acoustical separation from adjacent offices and surrounding spaces.
- ■Minimum room height to be 9'-0".

# Proximity Needs:

- Reception
- ■Administrative Assistant
- ■Departmental Offices

## Copy/Fax Room

This space provides dedicated storage for departmental supplies and equipment.

Square Footage Requirement: 100 NASF IBC Occupancy Class: B Business Space

Space Use Code: 315

## Requirements:

■Acoustical separation from adjacent offices and surrounding spaces.

■Adequate power and data outlets.

**Proximity Needs:** 

- Reception
- ■Administrative Assistant
- ■Student Assistant
- ■Office Manager
- ■Departmental Offices

# **Departmental Office Storage**

This space provides dedicated storage for departmental supplies and equipment.

Square Footage Requirement: 80 NASF IBC Occupancy Class: B Business Space

Space Use Code: 315

Requirements:

■None.

Proximity Needs:

- Reception
- ■Administrative Assistant
- ■Student Assistant
- ■Office Manager
- ■Departmental Offices

# **Departmental Accreditation Archive**

This space provides secure storage of student projects for departmental accreditation.

Square Footage Requirement: 250 NASF IBC Occupancy Class: B Business Space

Space Use Code: 315

Requirements:

■None.

- Reception
- ■Administrative Assistant
- ■Student Assistant
- ■Office Manager
- ■Departmental Offices

# **College Administrative Support Spaces**

- ■Deans Administrative Reception
- ■Administrative Assistant to the Dean
- ■Student Assistant
- ■Project Coordinator
- ■Assistant to the Dean
- ■Associate Dean
- ■Dean
- ■Shared Workroom
- ■Deans Small Conference Room
- ■Deans Large Conference Room
- ■Copy/Fax/Scanner/Pantry Room
- ■File/Mail Rooms
- ■Storage
- ■Coat Closet
- ■Deans Restroom
- ■Budget/Fiscal Reception
- ■Budget/Fiscal Student Assistants
- Accountant
- ■Budget/Fiscal Officer
- **■**Communications and Events
- ■APDesign Merchandise Closet

# **Deans Administrative Reception**

These spaces are to accommodate up to 4 occupants in a casual seating/lounge area while they wait to visit the department administrators.

Square Footage Requirement: 200 NASF IBC Occupancy Class: B Business Space

Space Use Code: 315

# Requirements:

- ■Natural day lighting is desirable.
- ■Transparency between the corridor and Reception is desirable.
- Acoustical separation from surrounding spaces.
- Ample wall space for showcasing student and faculty work/art
- Space directly outside of Reception should be provided for College announcements/information.
- ■Minimum room height to be 9'-0".

#### Proximity Needs:

- ■Administrative Assistant to the Dean
- ■Student Assistant
- ■Deans Large Conference Room
- ■Coat Closet
- Restroom

# **Administrative Assistant to the Dean**

This space should accommodate one occupant in open office seating with full view of Reception and Departmental Office entrance.

Square Footage Requirement: 100 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

# Requirements:

- Natural day lighting is desirable.
- ■Operable windows are desirable.
- ■Open office seating.
- ■Adequate power and data outlets.
- ■Minimum room height to be 9'-0".

# Proximity Needs:

- ■Deans Administrative Reception
- ■Student Assistant
- ■Deans Offices
- ■Deans Large Conference Room
- ■Copy/Fax/Scanner/Pantry Room
- ■Deans Storage

## **Student Assistant**

This space should accommodate one occupant in open office seating with full view of Reception and Departmental Office entrance.

Square Footage Requirement: 100 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

#### Requirements:

- Natural day lighting is desirable.
- ■Operable windows are desirable.
- ■Open office seating.
- ■Adequate power and data outlets.
- ■Minimum room height to be 9'-0".

# Proximity Needs:

- ■Deans Administrative Reception
- ■Administrative Assistant to the Dean
- ■Assistant to the Dean
- ■Project Coordinator
- ■Shared Workroom

## **Project Coordinator**

This space should accommodate one occupant in open office seating.

Square Footage Requirement: 100 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

# Requirements:

- ■Natural day lighting is desirable.
- ■Operable windows are desirable.
- ■Open office seating.
- ■Adequate power and data outlets.
- ■Minimum room height to be 9'-0".

# Proximity Needs:

- ■Deans Administrative Reception
- ■Administrative Assistant to the Dean
- ■Assistant to the Dean
- ■Shared Workroom

## **Assistant to the Dean**

This space should accommodate two to three occupants in a typical one-person office setting. In general, offices should be organized to facilitate a conversation zone at the door, a collaborative space for two to three people, and a concentrated work area.

Square Footage Requirement: 150 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

#### Requirements:

- Natural day lighting is desirable.
- ■Operable windows are desirable.
- Acoustical separation from adjacent offices and surrounding spaces.
- ■Adequate power and data outlets.
- ■Minimum room height to be 9'-0".

# Proximity Needs:

- ■Administrative Assistant to the Dean
- ■Student Assistant
- ■Project Coordinator
- ■Dean
- ■Deans Small Conference Room
- ■Shared Workroom

# **Associate Dean**

This office is to accommodate four occupants in a one-person office setting. It should be organized to have a casual conversational area for up to four people, and a concentrated work area.

Square Footage Requirement: 275 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

# Requirements:

- ■Natural day lighting is desirable.
- ■Operable windows are desirable.
- ■Acoustical separation from adjacent offices and surrounding spaces.
- ■Wall space is required to accommodate furniture system shelving and storage.
- ■Wall space is required for art display.
- Adequate power and data outlets.
- ■Minimum room height to be 9'-0".

# Proximity Needs:

- ■Administrative Assistant to the Dean
- ■Assistant to the Dean
- ■Project Coordinator
- ■Associate Dean
- ■Deans Small Conference Room
- ■Shared Workroom
- ■Deans Large Conference Room

#### Dean

This office is to accommodate up to five occupants in a one-person office setting. It should be organized to have a casual conversational area for up to five people, and a concentrated work area.

Square Footage Requirement: 375 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

Requirements:

- Natural day lighting is desirable.
- ■Operable windows are desirable.
- Acoustical separation from adjacent offices and surrounding spaces.
- ■Wall space is required to accommodate furniture system shelving and storage.
- ■Wall space is required for art display.
- ■Adequate power and data outlets.
- ■Minimum room height to be 9'-0".

#### **Proximity Needs:**

- ■Administrative Assistant to the Dean
- ■Assistant to the Dean
- ■Project Coordinator
- ■Associate Dean
- ■Deans Small Conference Room
- ■Shared Workroom
- ■Deans Large Conference Room
- ■Restroom

# **Shared Workroom**

This office serves as the primary workspace for part time student assistants. The office should accommodate three occupants in a three-person office setting. In general, offices should be organized to facilitate a conversation zone at the door, two individual workstations and additional seating for guests.

Square Footage Requirement: 175 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

Requirements:

- Natural day lighting is desirable.
- ■Operable windows are desirable.
- •Acoustical separation from adjacent offices and surrounding spaces.
- ■Minimum room height to be 9'-0".

## **Proximity Needs:**

- ■Administrative Assistant to the Dean
- ■Assistant to the Dean
- ■Project Coordinator

#### **Deans Small Conference Room**

This space is to accommodate four to six occupants in a conference table setting used for meetings, work sessions, and teleconference activities. This space should be part of the Deans Suite and is for the exclusive use of the Deans.

Square Footage Requirement: 150 NASF IBC Occupancy Class: B Business Space

Space Use Code: 350

#### Requirements:

- Natural day lighting is desirable.
- ■Operable windows are desirable.
- •Acoustical separation from adjacent offices and surrounding spaces.
- Adequate power and data outlets to accommodate a variety of multimedia presentations, including teleconferences and video conferences.
- ■Minimum room height to be 9'-0".

- ■Assistant to the Dean
- ■Dean
- ■Associate Dean

# **Deans Large Conference Room**

This space is to accommodate up to 25 occupants in a setting equivalent to a corporate board room. It is to have high visibility and accessibility to the primary public circulation path. It need not be part of the Deans Suite, but should be located nearby. Its primary use is for programming, but will also serve the needs of the College as both a seminar room, Departmental Conference Room and at times, may be used by Student Services for hosting non-College guests. The furnishings are to include board room style tables and executive chairs, but have flexible seating arrangements.

Square Footage Requirement: 625 NASF IBC Occupancy Class: B Business Space

Space Use Code: 350

Requirements:

- ■Natural day lighting is desirable.
- ■Operable windows are desirable.
- •Acoustical separation from adjacent offices and surrounding spaces.
- Adequate power and data outlets to accommodate a variety of multimedia presentations, including teleconferences and video conferences.
- Stand-alone Creston control system for integrated AV, lighting, and shade control.
- ■Provide white board at front of room.
- ■Provide wall space to accommodate furniture system storage.
- ■Room to be equipped with power and data at every station.
- ■Supplemental wireless data should be provided.
- ■Minimum room height to be 9'-0".

Proximity Needs:

- ■Deans Suite
- ■Primary public circulation

## Copy/Fax/Scanner/Pantry

This space provides dedicated storage for printing, copy, fax and scanning equipment and associated supplies. It also serves as a small pantry for College related hospitality needs. A small kitchenette with upper and lower cabinets, sink, under counter refrigerator, microwave and coffee machine should be provided.

Square Footage Requirement: 150 NASF IBC Occupancy Class: B Business Space

Space Use Code: 315

Requirements:

- •Acoustical separation from adjacent offices and surrounding spaces.
- •Adequate power and data outlets including dedicated outlets for residential appliances.

Proximity Needs:

- Reception
- ■Administrative Assistant
- ■Student Assistant
- ■Office Manager
- ■Departmental Offices

#### File/Records Room

This space provides dedicated storage for active College files.

Square Footage Requirement: 80 NASF IBC Occupancy Class: B Business Space

Space Use Code: 315

Requirements:

■None.

Proximity Needs:

- Reception
- ■Administrative Assistant
- ■Student Assistant
- ■Office Manager
- ■Departmental Offices

# **Storage**

This space provides secure storage for student records as per University and College standards.

Square Footage Requirement: 200 NASF IBC Occupancy Class: B Business Space

Space Use Code: 315

Requirements:

■None.

Proximity Needs:

- Reception
- ■Administrative Assistant
- ■Student Assistant
- ■Office Manager
- ■Departmental Offices

## **Coat Closet**

This space provides storage of outerwear for Deans Suite occupants and their guests.

Square Footage Requirement: 15 NASF IBC Occupancy Class: B Business Space

Space Use Code: 315

Requirements:

■Coat rod and storage shelf should be provided.

Proximity Needs:

- Reception
- ■Administrative Assistant
- ■Student Assistant
- ■Departmental Offices

#### **Deans Restroom**

This unisex toilet room is for the exclusive use of the Deans Suite occupants and their guests.

Square Footage Requirement: 200 NASF IBC Occupancy Class: B Business Space

Space Use Code: X03

Requirements:

■Room must meet all ADA accessibility standards.

- Reception
- ■Administrative Assistant
- ■Student Assistant
- ■Office Manager
- ■Departmental Offices

# **Budget/Fiscal Reception**

This space is to accommodate 1-2 occupants in a casual seating/lounge area while they wait to visit the budget/fiscal administrators.

Square Footage Requirement: 100 NASF IBC Occupancy Class: B Business Space

Space Use Code: 315

## Requirements:

- Natural day lighting is desirable.
- Transparency between the corridor and Reception is desirable.
- ■Acoustical separation from surrounding spaces.
- ■Space directly outside of Reception should be provided for administrative announcements/information.
- ■Minimum room height to be 9'-0".

# Proximity Needs:

- ■Budget/Fiscal Student Assistants
- Accountant
- ■Budget/Fiscal Officer

# **Budget/Fiscal Student Assistants**

This office serves as the primary workspace for part time student assistants. The office should accommodate three occupants in a three-person office setting. In general, offices should be organized to facilitate a conversation zone at the door, two individual workstations and additional seating for guests.

Square Footage Requirement: 225 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

#### Requirements:

- ■Natural day lighting is desirable.
- ■Operable windows are desirable.
- Acoustical separation from adjacent offices and surrounding spaces.
- ■Minimum room height to be 9'-0".

# Proximity Needs:

- ■Budget/Fiscal Reception
- Accountant
- ■Budget/Fiscal Officer

# **Accountant**

This space should accommodate two to three occupants in a typical one-person office setting. In general, offices should be organized to facilitate a conversation zone at the door, a collaborative space for two to three people, and a concentrated work area.

Square Footage Requirement: 150 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

#### Requirements:

- ■Natural day lighting is desirable.
- ■Operable windows are desirable.
- •Acoustical separation from adjacent offices and surrounding spaces.
- ■Minimum room height to be 9'-0".

#### Proximity Needs:

■Budget/Fiscal Officer

# **Budget/Fiscal Officer**

This space should accommodate two to three occupants in a typical one-person office setting. In general, offices should be organized to facilitate a conversation zone at the door, a collaborative space for two to three people, and a concentrated work area.

Square Footage Requirement: 150 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

#### Requirements:

- Natural day lighting is desirable.
- ■Operable windows are desirable.
- •Acoustical separation from adjacent offices and surrounding spaces.
- ■Minimum room height to be 9'-0".

# **Proximity Needs:**

- ■Budget/Fiscal Reception
- ■Budget/Fiscal Student Assistants
- Accountant
- ■Deans Suite

## **Communications and Events Coordinator**

This space should accommodate two to three occupants in a two-person office setting. In general, offices should be organized to facilitate a conversation zone at the door, a collaborative space for two to three people including a workstation for a part time student assistant, and a concentrated work area.

Square Footage Requirement: 200 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

#### Requirements:

- Natural day lighting is desirable.
- ■Operable windows are desirable.
- •Acoustical separation from adjacent offices and surrounding spaces.
- ■Directly outside of the office, space should be provided for administrative announcements/information as well as display of College merchandise for sale.
- ■Minimum room height to be 9'-0".

# Proximity Needs:

- ■Deans Suite
- ■Primary public circulation

## **APDesign Merchandise Storage**

This space provides dedicated storage for College merchandise for sale.

Square Footage Requirement: 80 NASF IBC Occupancy Class: B Business Space

Space Use Code: 315

Requirements:

■None.

#### Proximity Needs:

■Communications and Events Coordinator

# **College Student Services Support Spaces**

- ■Student Services Administrative Reception Prospective Students
- ■Student Services Administrative Reception Current Students
- ■Administrative Assistant
- **■**Coordinator
- ■Professional Development Staff Office
- ■Shared Office
- ■Director of Student Recruitment
- ■Director of Academic Services and Academic Advisor
- ■Associate Dean
- ■Student Services Conference Room
- ■Student Services Office Storage

# Student Services Administrative Reception – Prospective Students

This space is to accommodate up to 3 occupants in a casual seating/lounge area while they wait to visit the department administrators.

Square Footage Requirement: 150 NASF IBC Occupancy Class: B Business Space

Space Use Code: 315

#### Requirements:

- ■Natural day lighting is desirable.
- ■Transparency between the corridor and Reception is desirable.
- •Acoustical separation from surrounding spaces.
- ■Ample wall space for showcasing student work/art
- •Space directly outside of Reception should be provided for Student Services related announcements/information.
- ■Minimum room height to be 9'-0".

#### Proximity Needs:

- ■Administrative Assistant
- ■Director of Student Recruitment
- ■Associate Dean
- ■Student Services Conference Room
- ■Student Services Office Storage

## Student Services Administrative Reception - Current Students

This space is to accommodate up to 3 occupants in a casual seating/lounge area while they wait to visit the department administrators.

Square Footage Requirement: 150 NASF IBC Occupancy Class: B Business Space

Space Use Code: 315

# Requirements:

- ■Natural day lighting is desirable.
- ■Transparency between the corridor and Reception is desirable.
- Acoustical separation from surrounding spaces.
- ■Ample wall space for showcasing student work/art
- Space directly outside of Reception should be provided for Student Services related announcements/information.
- ■Minimum room height to be 9'-0".

- **■**Coordinator
- ■Professional Development Staff Office
- ■Shared Office

- ■Director of Academic Services and Academic Advisor
- ■Student Services Conference Room
- ■Student Services Office Storage

## **Administrative Assistant**

This space should accommodate one occupant in open office seating with full view of Student Services Administrative Reception – Prospective Students and Departmental Office entrance.

Square Footage Requirement: 100 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

#### Requirements:

- Natural day lighting is desirable.
- ■Operable windows are desirable.
- ■Open office seating.
- ■Adequate power and data outlets.
- ■Minimum room height to be 9'-0".

## Proximity Needs:

- ■Student Services Administrative Reception Prospective Students
- ■Director of Student Recruitment
- ■Associate Dean
- ■Student Services Conference Room
- ■Student Services Office Storage

#### Coordinator

This space should accommodate two to three occupants in a typical one-person office setting. In general, offices should be organized to facilitate a conversation zone at the door, a collaborative space for two to three people, and a concentrated work area.

Square Footage Requirement: 150 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

#### Requirements:

- Natural day lighting is desirable.
- ■Operable windows are desirable.
- Acoustical separation from adjacent offices and surrounding spaces.
- ■Adequate power and data outlets.
- ■Minimum room height to be 9'-0".

#### **Proximity Needs:**

- ■Student Services Administrative Reception Current Students
- ■Director of Academic Services and Academic Advisor
- ■Professional Development Staff Office
- ■Shared Office
- ■Student Services Conference Room
- ■Student Services Office Storage

## **Professional Development Staff Office**

This space should accommodate two to three occupants in a typical one-person office setting. In general, offices should be organized to facilitate a conversation zone at the door, a collaborative space for two to three people, and a concentrated work area.

Square Footage Requirement: 150 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

Requirements:

- Natural day lighting is desirable.
- ■Operable windows are desirable.
- •Acoustical separation from adjacent offices and surrounding spaces.
- ■Adequate power and data outlets.
- ■Minimum room height to be 9'-0".

**Proximity Needs:** 

- ■Student Services Administrative Reception Current Students
- ■Director of Academic Services and Academic Advisor
- **■**Coordinator
- ■Shared Office
- ■Student Services Conference Room
- ■Student Services Office Storage

# **Shared Office**

This space should accommodate two to three occupants in a typical one-person office setting. In general, offices should be organized to facilitate a conversation zone at the door, a collaborative space for two to three people, and a concentrated work area. These offices are to be shared by 3-4 student assistants.

Square Footage Requirement: 150 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

Requirements:

- ■Natural day lighting is desirable.
- ■Operable windows are desirable.
- •Acoustical separation from adjacent offices and surrounding spaces.
- ■Adequate power and data outlets.
- ■Minimum room height to be 9'-0".

**Proximity Needs:** 

- ■Student Services Administrative Reception Current Students
- ■Director of Academic Services and Academic Advisor
- **■**Coordinator
- ■Professional Development Staff Office
- ■Student Services Conference Room
- ■Student Services Office Storage

#### **Director of Student Recruitment**

This space should accommodate two to three occupants in a typical one-person office setting. In general, offices should be organized to facilitate a conversation zone at the door, a collaborative space for two to three people, and a concentrated work area.

Square Footage Requirement: 175 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

Requirements:

- ■Natural day lighting is desirable.
- ■Operable windows are desirable.
- •Acoustical separation from adjacent offices and surrounding spaces.
- ■Adequate power and data outlets.
- ■Minimum room height to be 9'-0".

- ■Student Services Administrative Reception Prospective Students
- ■Administrative Assistant
- ■Associate Dean
- ■Student Services Conference Room
- ■Student Services Office Storage

#### **Director of Academic Services and Academic Advisor**

This space should accommodate two to three occupants in a typical one-person office setting. In general, offices should be organized to facilitate a conversation zone at the door, a collaborative space for two to three people, and a concentrated work area.

Square Footage Requirement: 175 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

#### Requirements:

- ■Natural day lighting is desirable.
- ■Operable windows are desirable.
- •Acoustical separation from adjacent offices and surrounding spaces.
- ■Adequate power and data outlets.
- ■Minimum room height to be 9'-0".

# Proximity Needs:

- ■Student Services Administrative Reception Current Students
- ■Coordinator
- ■Professional Development Staff Office
- ■Shared Office
- ■Student Services Conference Room
- ■Student Services Office Storage

# **Associate Dean**

This office is to accommodate four occupants in a one-person office setting. It should be organized to have a casual conversational area for up to four people, and a concentrated work area.

Square Footage Requirement: 275 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

# Requirements:

- Natural day lighting is desirable.
- ■Operable windows are desirable.
- •Acoustical separation from adjacent offices and surrounding spaces.
- •Wall space is required to accommodate furniture system shelving and storage.
- ■Wall space is required for art display.
- ■Adequate power and data outlets.
- ■Minimum room height to be 9'-0".

- ■Student Services Administrative Reception Prospective Students
- ■Administrative Assistant
- ■Student Services Conference Room
- ■Student Services Office Storage
- ■Student Services Administrative Reception Current Students
- **■**Coordinator
- ■Director of Academic Services and Academic Advisor
- ■Professional Development Staff Office
- ■Shared Office

## **Student Services Conference Room**

This space is to accommodate up to 25 occupants in a setting equivalent to a corporate board room. It is to have high visibility and accessibility to the primary public circulation path. It need not be part of the Student Services Suite, but should be located nearby. Its primary use is for hosting non-College guests, but will also serve the needs of the College as both a seminar room, Departmental Conference Room. The furnishings are to include board room style tables and executive chairs, but have flexible seating arrangements.

Square Footage Requirement: 625 NASF IBC Occupancy Class: B Business Space

Space Use Code: 350

#### Requirements:

- Natural day lighting is desirable.
- ■Operable windows are desirable.
- Acoustical separation from adjacent offices and surrounding spaces.
- Adequate power and data outlets to accommodate a variety of multimedia presentations, including teleconferences and video conferences.
- Stand-alone Creston control system for integrated AV, lighting, and shade control.
- ■Provide white board at front of room.
- ■Provide wall space to accommodate furniture system storage.
- ■Room to be equipped with power and data at every station.
- ■Supplemental wireless data should be provided.
- ■Minimum room height to be 9'-0".

Proximity Needs:

- ■Student Services Suite
- ■Primary public circulation

# **Student Services Office Storage**

This space provides secure storage for student records as per University and College standards.

Square Footage Requirement: 80 NASF IBC Occupancy Class: B Business Space

Space Use Code: 315

Requirements:

■None.

- Reception
- ■Administrative Assistant
- ■Student Assistant

# **Information Technology Support Spaces**

- ■IT Queuing
- ■Shared IT Workroom/Office Suite
- ■IT Storage
- ■Head-End Technology Room
- ■Technology Closets

# **IT Queuing**

This reception area is to accommodate 1-2 persons who are waiting for technology service from the Shared IT Workroom/Office Suite. Lounge seating should be provided.

Square Footage Requirement: 80 NASF IBC Occupancy Class: B Business Space

Space Use Code: 315

Requirements:

■None

**Proximity Needs:** 

■Shared IT Workroom/Office Suite

#### **Shared IT Workroom/Office Suite**

This office is to accommodate four occupants in a collaborative workroom layout. Individual workstations should be provided for up to four individuals, with shared worktables in the center of the room. This office is both workroom for servicing equipment as well as a place to meet with students and faculty to discuss computing issues. A Dutch door or service counter should be provided to the IT Queuing area for service needs

Square Footage Requirement: 550 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

Requirements:

- ■Natural day lighting desirable.
- Acoustical separation from surrounding spaces.
- ■Minimum room height to be 9'-0".
- ■Floor materials to have anti-static finishes.

Proximity Needs:

- ■IT Queuing
- ■IT Storage
- ■Head-End Technology Room

#### IT Storage

This space serves the Shared IT Workroom/Office Suite as secure storage space for shared technology equipment and service components.

Square Footage Requirement: 80 NASF IBC Occupancy Class: B Business Space

Space Use Code: 710

Requirements:

■Power and data outlets.

**Proximity Needs:** 

■Shared IT Workroom/Office Suite

# **Head-End Technology Room**

This space is to be the primary entrance for telecommunications technology from the campus network outside the building, feeding the Technology Closets for further distribution throughout the building. It is to accommodate servers, switches, back-up power, and other information technology equipment for both hard-wired and wireless telecommunication. The space is to have dedicated conditioning to maintain equipment temperatures.

Square Footage Requirement: Non-Assignable

IBC Occupancy Class: B Business Space

Space Use Code: 715

#### Requirements:

- •Openings to be sealed to prevent dust from entering room.
- ■Durable anti-static finishes.
- ■HVAC with redundant components.
- Acoustical separation from surrounding spaces.
- ■Security monitoring.
- Conduit linking Technology Closets and Head-End Technology Room.

# Proximity Needs:

- ■Director's Office
- ■Support Technician's Office
- ■Staff Office
- ■Head-End Technology Room

# **Technology Closets**

These spaces are to accommodate information technology switches for both hard-wired and wireless telecommunication. They are to be distributed throughout the building such that there is no more than 160 horizontal feet in a straight line to any data port being served by equipment in the closet. The closets are to have dedicated conditioning to maintain equipment temperatures.

Square Footage Requirement: 50 NASF IBC Occupancy Class: B Business Space

Space Use Code: 715

#### Requirements:

- •Openings to be sealed to prevent dust from entering closets.
- ■Three four-plex power receptacles.
- ■Conduit linking Technology Closets and Head-End Technology Room.

## **Proximity Needs:**

■Distributed throughout the building.

# **Weigel Library**

- ■Stacks
- ■Periodicals
- ■Quiet Study Areas
- ■Group Study Areas
- ■Computer/Scanner Workstations
- Display
- **■**Circulation Desk
- ■Staff Workroom
- ■Shared Staff Office
- ■Special Collections
- ■Library Restrooms

#### **Stacks**

This space serves as the primary collection of print based research material for the College. The library has daily hours of operation and user access is limited to these times. The library is ideally located along the primary public circulation path and should have a high degree of visibility and accessibility to all students and faculty.

Square Footage Requirement: 4,250 NASF IBC Occupancy Class: B Business Space

Space Use Code: 420

Requirements:

- ■Secure environment.
- ■Ample floor area for stacks that meet ADA accessibility guidelines.
- •High degree of visibility from the circulation desk.
- ■Appropriate lighting

Proximity Needs:

- **■**Periodicals
- ■Quiet Study Areas
- ■Group Study Areas
- ■Circulation Desk
- ■Primary building lobby
- ■Social Pods

#### **Periodicals**

This space serves as the primary collection of periodicals in Weigel Library. The periodical collection is updated regularly and is one of the most used areas of the Library, therefore it should be located in a highly accessible, both visually and physically, location within the Library. The periodical collection is ideally located adjacent to the circulation desk, group study areas and stacks.

Square Footage Requirement: 350 NASF IBC Occupancy Class: B Business Space

Space Use Code: 420

Requirements:

- Secure environment.
- ■Ample floor area for low stacks that meet ADA accessibility guidelines.
- ■High degree of visibility from the circulation desk and library entrance.
- ■Appropriate lighting
- Natural day lighting is desirable.

- ■Stacks
- ■Group Study Areas

- ■Circulation Desk
- ■Computer/Scanner Workstations

# **Quiet Study Area**

This space serves the needs of students and faculty who desire a solitary, quiet study area in which to conduct research. Ideally integrated within the stacks environment, the quiet study area should offer a mix of group study tables and individual study carrels.

Square Footage Requirement: 150 NASF IBC Occupancy Class: B Business Space

Space Use Code: 430

Requirements:

- ■Appropriate lighting
- Natural day lighting is desirable.
- ■Power and data outlets at each seating position.

**Proximity Needs:** 

■Stacks

# **Group Study Area**

This space serves the needs of students and faculty who desire a collaborative study environment in which to conduct research, collaborate on presentations and meet with their colleagues. This space should be located near the circulation desk and should be acoustically separated from the Stacks and Quiet Study Areas. Furnishings should consist of a mix of worktables with recessed power and data outlets as well as soft seating with nearby power outlets.

Square Footage Requirement: 350 NASF IBC Occupancy Class: B Business Space

Space Use Code: 430

#### Requirements:

- ■Ample floor area for worktable layouts that meet ADA accessibility guidelines.
- ■High degree of visibility from the circulation desk and library entrance.
- ■Appropriate lighting
- ■Natural day lighting is desirable.
- ■Power and data outlets at each seating position.
- ■Wireless access points should be provided for consistent coverage.

Proximity Needs:

■Circulation Desk

# **Computer/Scanner Workstations**

This space serves as the intra-Library computer lab offering users the ability to perform copying and large scale scanning of Library collections. Several computer workstations are also provided for research, access to online University Library databases and the internet.

Square Footage Requirement: 200 NASF IBC Occupancy Class: B Business Space

Space Use Code: 455

#### Requirements:

- ■Workstations with power and data connections.
- Layout space for both scanning equipment as well as materials to be scanned.

- ■Circulation Desk
- ■Periodicals

# Display

This space is curated by the Librarians and serves as a way to connect Library holdings with College wide events, exhibits, and lectures. It is also a place for the Library to post announcements and other informational materials. This space is ideally located adjacent to the Library entrance and is visible from the primary public circulation corridor.

Square Footage Requirement: 50 NASF IBC Occupancy Class: B Business Space

Space Use Code: 620

Requirements:

■Transparency between the corridor and the Library

Proximity Needs:

Circulation Desk

Library entrance

#### **Circulation Desk**

This space is where all formal Library transactions occur and where users can meet with the Library staff. Ample under counter and back counter storage must be provided for supplies and library equipment.

Square Footage Requirement: 100 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

Requirements:

- ■Direct visibility to the Library entrance.
- ■Power and data outlets.
- ■Secure storage for Library staff personal items.
- •Coordinate all millwork with appropriate Library equipment as per University Library standards.

Proximity Needs:

- ■Library entrance
- ■Periodicals
- ■Group Study Area
- ■Computer/Scanner Workstations
- ■Staff Workroom
- ■Shared Office
- ■Special Collections

# Staff Workroom

This space serves as the primary workspace for the librarians, library assistants, and student workers. The space should accommodate up to four occupants in a shared workroom environment with a communal worktable, secure storage and small pantry with sink, microwave and under counter refrigerator.

Square Footage Requirement: 155 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

Requirements:

- ■Natural day lighting is desirable.
- ■Operable windows are desirable.
- •Acoustical separation from adjacent offices and surrounding spaces.
- ■Small pantry with sink, microwave and under counter refrigerator.
- ■Provide dedicated power for refrigerator.

Proximity Needs:

■Circulation Desk

## ■Shared Staff Office

## **Shared Staff Office**

This office serves as the only private workspace for the use of Library staff. It provides a quiet and place to conduct sensitive meetings with staff, work in a quiet environment and conduct private business on behalf of the Library. The office is not "owned", but is shared between all Library staff. The office should accommodate two to three occupants in a one-person office setting. In general, offices should be organized to facilitate a conversation zone at the door and an area for concentrated work.

Square Footage Requirement: 150 NASF IBC Occupancy Class: B Business Space

Space Use Code: 310

Requirements:

- Natural day lighting is desirable.Operable windows are desirable.
- Proximity Needs:

  Circulation Desk

  Staff Workroom

# **Special Collections**

This space is a conservation environment for sensitive and valuable Library collections. The space must be secure and accessible only from the Library. 24 hour accessibility to the entire College should be encouraged through digitization of the collection as well as physical transparency between the room and to the primary public circulation path.

Square Footage Requirement: 500 NASF IBC Occupancy Class: B Business Space

Space Use Code: 420

Requirements:

- ■Conservation environment
- ■Secure environment
- Transparency between the Special Collections Room and the primary public circulation corridor.
- ■Ample layout space for researchers.
- ■Power and wireless data are desirable.

Proximity Needs:

- ■Circulation Desk
- ■Staff Workroom

# **Library Restrooms**

These unisex toilet rooms are for the exclusive use of Weigel Library staff and researchers.

Square Footage Requirement: 65 NASF IBC Occupancy Class: B Business Space

Space Use Code: X03

Requirements:

■Room must meet all ADA accessibility standards.

Proximity Needs: 
•Circulation Desk

# **General Building Spaces**

- ■Building Lobbies/Gathering Space
- ■Social Pods
- ■Vending Alcove
- ■Student Mailboxes
- ■Chang Gallery
- ■Chang Gallery Storage/Support
- ■Catering Kitchen

# **Building Lobbies/Gathering Space**

These spaces are to be used for ingress and egress of building occupants through climate controlled vestibules, and their location in the building planning should reinforce the clarity of the building layout. Digital way finding should be provided at all entrances. Lobby spaces should be sized to accommodate informal all-school gatherings and should be fit-out with lounge seating in casual seating groups. Primary vertical circulation should be part of an adjacent to these spaces. These spaces should encourage the greater University community to pass though the College. Space for the display of College projects including full scale mockups should be provided. All building lobbies and entrances must meet ADA accessibility standards.

Square Footage Requirement: 3,000 NASF IBC Occupancy Class: B Business Space

Space Use Code: W05

#### Requirements:

- ■Natural day lighting is desirable.
- ■Provide appropriate mechanical systems for entry vestibules.
- ■Meet ADA accessibility standards for building lobbies and entrances
- ■Provide durable finishes throughout.
- ■Provide wall and floor mounted power for laptop use.
- ■Provide wireless access points for continuous coverage.

#### **Proximity Needs**

- Auditorium
- ■Catering kitchen
- **■**Toilet Rooms
- ■Student Services
- ■Chang Gallery
- ■Weigel Library

# **Social Pods**

These spaces are to be distributed throughout the building, and generally situated along primary circulation paths. They are intended to provide informal space for individual students or small groups of students who are working on class projects, studying for exams or other academic activities. The spaces are to be comfortable and inviting, and include various amenities such as casual chairs, sofas, tables, access to natural daylight, abundant power outlets and wireless data access. One Social Pod should have wood lockers for use by student organizations, and should be fit out with tables and chairs in lieu of lounge seating. One Social Pod should be provided with student mailboxes.

Square Footage Requirement: 1,050 NASF Total

IBC Occupancy Class: B Business Space

Space Use Code: 400

#### Requirements:

- Natural day lighting is desirable.
- ■Provide a variety of furniture environments.
- ■Provide wall and floor mounted power for laptop use.
- •Provide wireless access points for continuous coverage.

Proximity Needs:

- ■Faculty Offices
- ■Design Studios
- ■Classrooms
- ■Primary public circulation

# **Vending Alcoves**

These spaces are to be distributed throughout the building and generally situated along primary circulation paths close to secondary building entrances for serviceability. They will contain 2-3 vending machines as per existing University contracts.

Square Footage Requirement: 50 NASF IBC Occupancy Class: B Business Space

Space Use Code: W06

Requirements:

- •Size of alcoves to be coordinated with University vendor provided equipment.
- ■Provide power outlets.

Proximity Needs:

- ■Secondary building entrances
- ■Primary circulation paths

## **Student Mailboxes**

This shared resource is located near the Student Services Current Students office.

Square Footage Requirement: 50 NASF IBC Occupancy Class: B Business Space

Space Use Code: 315

Requirements:

■None

Proximity Needs:

■Circulation path near Student Services Suite

#### **Chang Gallery**

This space is intended to serve the College and greater University communities as a venue for rotation exhibits, both those generated by the College and those travelling from other institutions/artists. The space may also be used as a critique space during mid and end of year reviews. The space must be a secure environment with lockable and alarmed doors. Security cameras must be provided. Moving partitions, model stands and other display cases are to be stored in an adjacent storage room. The space should be fit out for multimedia artworks. Digital signage should be provided at the entrance along the public corridor. The Gallery should be located proximate to the primary building entrance.

Square Footage Requirement: 1,000 NASF IBC Occupancy Class: A-3 Assembly Space

Space Use Code: 620

Requirements:

- ■Secure environment.
- Natural day lighting is desirable.
- ■Coordinate design of the room with technology requirements to accommodate the needs multimedia artwork.
- ■Room to be equipped with wireless data points for consistent coverage.
- ■High degree of visibility.

Proximity Needs:

■Primary building entrance/Public gathering

- Auditorium
- ■Catering Kitchen and staging area for events
- ■Chang Gallery Storage
- ■Toilet Rooms

# **Chang Gallery Storage**

This space serves the Chang Gallery as storage space for movable partitions, model stands and other display cases. It also stored shipping materials for travelling exhibits.

Square Footage Requirement: 80 NASF IBC Occupancy Class: B Business Space

Space Use Code: 625

Requirements:

Secure environment.

Proximity Needs:

■Chang Gallery

# **Catering Kitchen**

This space serves the entire College for event catering needs. This space is to be designed as a warming kitchen only, with ample space for layout, dedicated electrical outlets for full size refrigerator and warming boxes, a residential dishwasher and sink. No cooking is to take place here therefore no grease traps or cooking equipment should be provided.

Square Footage Requirement: 200 NASF IBC Occupancy Class: B Business Space

Space Use Code: 630

Requirements:

- ■Odor control.
- Acoustic separation from adjacent spaces.

- Auditorium
- ■Primary Building Lobby/Entrance
- ■Crit Space (to be used for staging during events)

# **General Building Support Spaces**

- ■Toilet Rooms (Pairs)
- ■Dedicated Clean-Up Rooms
- ■Janitorial Closets
- Mechanical/Electrical Equipment Rooms

# **Toilet Rooms (Pairs)**

These paired spaces of men's and women's toilet rooms are to be centrally located in the building, two pair per floor. Actual numbers of fixtures and size of spaces will be determined by the occupancy needs on each floor.

Square Footage Requirement: Non-Assignable Area

IBC Occupancy Class: B Business Space

Space Use Code: W03

Requirements:

- ■Occupancy sensors for lighting.
- ■Minimum room height to be 8'-6".
- •Floor and wall materials to have durable finishes for cleaning methods utilized by the Division of Facilities.

Proximity Needs:

- ■Centrally located on each floor.
- ■Janitorial Closets

# **Dedicated Clean-Up Rooms**

These spaces provide centralized clean up spaces for the design studios. They are to be readily accessible for immediate cleaning needs 24 hours a day. Space should be provided for an industrial sized hand sink.

Square Footage Requirement: Non-Assignable Area (minimum of 80sf)

IBC Occupancy Class: B Business Space

Space Use Code: 215

Requirements:

- •Floor and wall materials to have durable finishes.
- ■Floor drain.
- ■Electrical power.

Proximity Needs:

- ■Centrally located on each floor.
- ■Design Studios

## **Janitorial Closets**

These spaces provide centralized cleaning and equipment storage for the building. They are to be located adjacent Toilet Rooms and readily accessible for immediate cleaning needs throughout the day. Actual space design and size will depend upon the floor cleaning equipment to be utilized by the Division of Facilities.

Square Footage Requirement: Non-Assignable Area (minimum of 80sf)

IBC Occupancy Class: B Business Space

Space Use Code: X02

Requirements:

- •Floor and wall materials to have durable finishes.
- ■Mop sink.
- •Floor cleaning equipment storage with floor drain.
- ■Electrical power for charging floor cleaning equipment.

**Proximity Needs:** 

■Centrally located on each floor.

# ■Toilet Rooms

# **Mechanical/Electrical Equipment Rooms**

These spaces accommodate incoming services and the building HVAC, gas, tel/data and electrical power needs. The actual size of the spaces will depend upon building configuration. All MEP equipment rooms should be acoustically separated from adjacent spaces.

Square Footage Requirement: Non-Assignable Area

IBC Occupancy Class: B Business Space

Space Use Code: Y04

# Requirements:

- ■Evaluate width/length proportions of the room to be compatible with efficient and accessible equipment layouts.
- ■Minimum room height to be 12'-0".
- Acoustical separation from surrounding spaces.
- ■Door hardware to be coordinated with rated partitions.
- ■Provide vestibules were required by code.

# **Proximity Needs:**

■Incoming service locations.

# **Appendix C Definitions and Space Use Codes**

# **Definitions**

The following section provides definitions of building area and definitions of space use codes. This appendix references the Postsecondary Education Facilities Inventory and Classification Manual 2006.

The following terms are defined and acronyms associated as used in the preceding text:

■ Gross Area (GSF): Gross area is the sum of all areas on all floors of a building included within the outside faces of its exterior walls, including all vertical penetration areas, for circulation and shaft areas that connect one floor to another. This area is computed by physically measuring or scaling measurements from the outside faces of exterior walls, disregarding cornices, pilasters, buttresses, etc., that extend beyond the wall faces. Such area excludes light wells, or portions of upper floors eliminated by spaces or lobbies that rise above single-floor ceiling height.

GSF = Net Usable Area + Structural Space

■ Structural Area: Structural area is the difference between the exterior or Gross Area and the interior or Net Usable Area, the floor area upon which the exterior and interior walls sit and the unusable areas in attics and excavated basements.

Structural Area = Gross Area – Net Usable Area

■ Net Usable Area: Net usable area, or Net Usable Square Feet (NUSF), is defined as the aggregate interior area of a building and is the sum of the Assignable Area and Non-Assignable area.

Net Usable Area = Net Assignable Square Footage + Non-Assignable Area

■ Net Assignable Square Footage (NASF): Net assignable square feet (NASF) is the sum of floor space within interior walls of rooms that is assigned to, or available for assignment to, occupants for use, excluding Non-Assignable spaces defined as building service, circulation, mechanical, and structural areas. NASF is determined by Space Use Codes and Functional Category Code data fields. All rooms not specifically excluded are assignable and must be measured and coded according to academic discipline or administrative assignment, Space Use Codes, and Functional Category Codes. Rooms that are specifically excluded are Non-Assignable Areas. The ten major Assignable Space Use Categories are as follows: Classrooms, laboratories, offices, study areas, special use space, general use areas, support rooms, health care, residential, and unclassified space. Not all of the categories are utilized in this building.

Net Assignable Square Footage = Sum of the Ten Major Space Use Categories of Assignable Space

- Non-Assignable Areas: This space is not assigned directly to support programs but is essential to the operation of the building and not assigned directly to people or programs. The three major space use categories are building service, circulation and mechanical.
- Building Service: This includes rooms used for building protection, care, and maintenance, such as custodial closets, trash rooms, guardrooms, custodial locker rooms, and custodial storage/supply rooms. Equipment storage areas are Assignable Areas.
- Circulation: This is space that provides physical access to assignable rooms. Included are corridors, public stairways, elevators, escalators, loading platforms, tunnels, bridges, fire towers, etc. Walls do not always bound circulation areas. Exceptions are halls in office suites and similar settings that are used to circulate form room to room and are not general access space. This space is part of the Assignable Area.
- **Mechanical**: This includes areas that house mechanical equipment, utility services, and shaft areas. Examples are mechanical service shafts, air ducts, IT closets, mechanical rooms, etc.

Non-Assignable Area = Sum of the Three Major Space Use Categories of Non-Assignable Space

# **Space Use Codes**

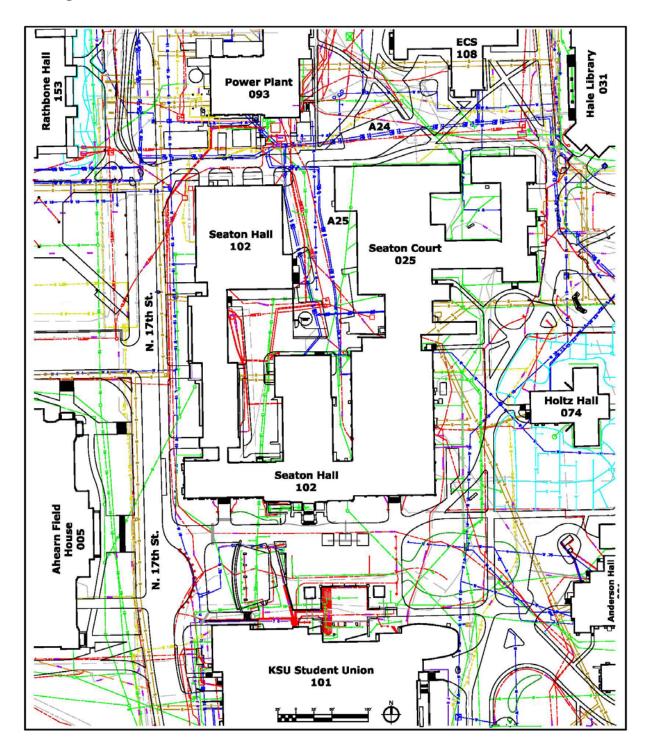
All usable space is designated as assignable or non-assignable and is labeled according to its primary use. These space use codes encompass 13 categories. All assignable space is classified into one of the ten major assignable use categories and all non-assignable space is classified into one of the three major non-assignable use categories.

- Classrooms (100 Series): General purpose classrooms, lecture halls, recitation rooms, seminar rooms, and other spaces used primarily for scheduled non-laboratory instruction.
  - 110 Classroom
  - 115 Classroom Service
- Laboratory Facilities (200 Series): Rooms or spaces characterized by special purpose equipment or a specific configuration that ties instructional or research activities to a particular discipline or a closely related group of disciplines.
  - 210 Class Laboratory
  - 215 Class Laboratory Service
  - 220 Special Class Laboratory
  - 225 Special Class Laboratory Service
  - 250 Research/Non-class Laboratory
  - 255 Research/Non-class Laboratory Service
- Office Facilities (300 Series): Offices and conference rooms specifically assigned to each of the various academic, administrative, and service functions.
  - 310 Office
  - 315 Office Service
  - 350 Conference
  - 355 Conference Room Service
- Study Facilities (400 Series): Study rooms, stacks, open-stack reading rooms, and library processing spaces.
  - 400 Study Room
  - 410 Reading Study Room
  - 420 Stack
  - 430 Open StackReading
  - 450 Processing Room
  - 455 Study Service
- **Special Use Facilities (500 Series)**: Not used for this building.
- General Use Facilities (600 Series): Assembly rooms, exhibition space, food facilities, lounges, merchandise facilities, recreational facilities, meeting rooms, child and adult care rooms, and other facilities that are characterized by a broader availability to faculty, students, staff, or the public than are special use areas.
  - 630 Food Service
  - 635 Food Facility Service
  - 650 Lounge
  - 680 Meeting Room
  - 685 Meeting Room Service
- Support Facilities (700 Series): Computing facilities, shops, central storage areas, vehicle storage areas, and central service space that provide centralized support for the facility.
  - 710 Central Computer or Telecommunications
  - 715 Central Computer or Telecommunications Service
  - 720 Shop
  - 725 Shop Service
  - 730 Central Storage
  - 735 Central Storage Service
  - 740 Vehicle Storage
  - 745 Vehicle Storage Service

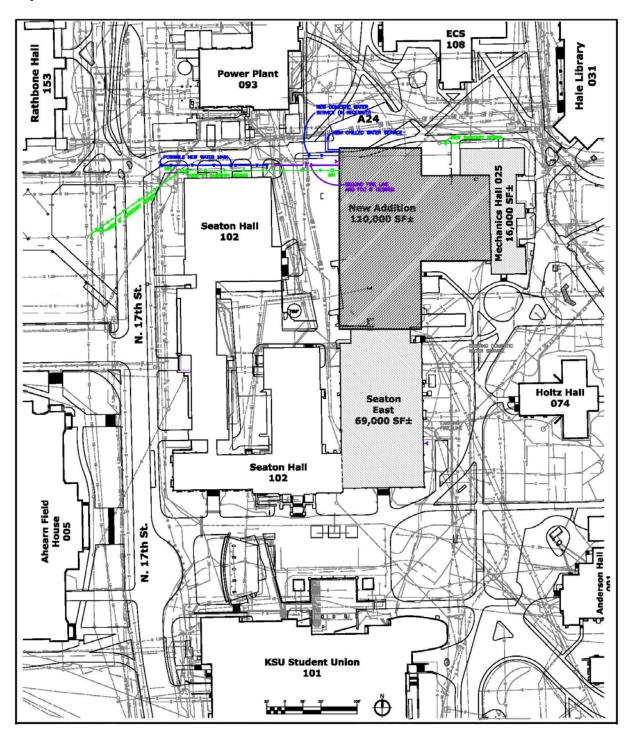
- 750 Central Service
- 755 Central Service Support
- 760 Hazardous Materials Storage
- 770 Hazardous Waste Storage
- 775 Hazardous Waste Service
- 780 Unit Storage
- Health Care Facilities (800 Series): Not used for this building.
- **Residential Facilities (900 Series)**: Not used for this building.
- Non-Assignable (WWW Series): Non-assignable spaces such as elevator, stairway, lobby, loading dock and other such space.
  - W01 Bridge/Tunnel
  - W02 Elevator
  - W03 Escalator
  - W04 Loading Dock
  - W05 Lobby
  - W06 Public Corridor
  - W07 Stairway
- Non-Assignable (XXX Series): Non-assignable spaces such as elevator, stairway, lobby, loading dock and other such space.
  - X01 Custodial Supply Closet
  - X02 Janitor Room
  - X03 Public Rest Room
  - X04 Trash Room
- Non-Assignable (YYY Series): Non-assignable spaces such as elevator, stairway, lobby, loading dock and other such space.
  - Y01 Central Utility Plant
  - Y02 Fuel Room
  - Y03 Shaft
  - Y04 Utility/Mechanical Space
  - Y06 Telecommunications Closet
- Unclassified (000 Series): Spaces available for assignment, temporarily out of use due to remodeling, or potentially assignable such as in new buildings or shell space.
  - 050 Inactive Area
  - 060 Alteration or Conversion Area
  - 070 Unfinished Area

# **Appendix D Site Infrastructure Maps**

# **Existing Site Utilities**



# **Proposed New Site Utilities**



# Appendix E Seaton Expansion & Renovation – Proposed Project Schedule

FY13				I						F١	Y14													FY1	5													F١	/16							Ι						F	-Y1	7						Ι			_		_		F	Y18	3			_		_
	V 5.277 5000						20	014 2									20	015							20							16							20																				01															
J F	М	Α	М	J	J	Α	S	0	Ν	D	J	F	1	М	Α	М	J	J	Α	S	0	1 (	1	D	J	F	М	A	\ I	VI	J	J	Α		ì	0	N	D	J	F	I	М	Α	М	1 0	J	J	Α	S	0	Ν	1 [		J	F	М	Α	M	1 ,	J	J	Α	. 5	S	0	Ν		) (	J.	F	М	Α	М	1 .
	Ш	_	$\perp$	Ц	┙		$\perp$			L	L	┸	┸	┙	_	$\perp$		$\square'$	L	L	L	┸	⊥	_	$\sqcup$			L	⊥	┙	╝		L	L	⊥	┙	╝		L	L	1	┙			L		┙	_		L	L	┸	⊥	┙	$\perp$			L	L	1	╝		⊥	┙			L	┸	⊥	┙			L	$\perp$
			F	PRO	GR/	MM	NG	- St	JBM	IT P	RE-	PRO	OĠF	RAM	W/	201	4 C	AP II	MPF	ROV	ĖМ	ΕŅΤ	s											L																																								
	П		П	T	╗	╗	T			Г	Т		col	MPL	ETE	PR	≀OG	RAN	и тс	ВС	R	T	Т	1	╗			Г	Т	T	$\neg$		Г	Т	Т	T	╗		Г	Т	T	T			Т	1	T	$\neg$		Г	Г	Т	T	T	T			Г	Т	T	П			T	$\neg$		Г	T	Т	╗			Г	Т
	П	T	╅	7	┪	T	╅			T	T	П	Α	DV.	FOF	R AF	RCH	IITE	CT/	EN	GIN	EEF	s	1	┪			T	Ť	7	7		Т	T	Ť	7	┪		r	Ť	†	✝		Т	Ť	1	T	ヿ		Г	T	Ť	†	T	7			T	Ť	Ť	┪		Ť	T	$\neg$		T	Ť	$^{\dagger}$	7		$\equiv$	Т	Ť
$\top$	$\forall$	7	$\dashv$	_	┪	7	┪	_		Н	✝	т.	1	1	ISB.	AC	SHC	ITE	LIST	<del> </del>	t	t	+	†	┪		Н	t	+	+	┪		H	+	+	+	┪	Н	H	$^{+}$	+	+		Н	t	+	+	┪		H	t	$^{\dagger}$	†	┪	7			t	+	†	┪		t	+	┪		t	t	+	7			H	†
+	$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$	┪	$\dashv$	$\dashv$		$\vdash$	╆	+	$^{+}$	Ť		NTE	RV	IEW	FIE	MS	╁	+	+	+	┪		Н	╁	+	+	ᇦ	H/	15	벍	+	+	$\dashv$		⊢	+	+	$\dashv$			+	$^{+}$	+	┪		$\vdash$	╁	+	+	+	┪		H	H	+	+	$\dashv$		$^{+}$	+	$\dashv$		╁	╁	+	+		_	⊢	十
+	+	_	$\dashv$	+	┪	+	$\dashv$	-		$\vdash$	✝	+	+	+		_	$\overline{}$	GOT	-	-	-	FIR	MS.	+	┪		Н	M	F۷	v (					ic.	TIC	ואכ	_	H	+	+	┪		Н	$^{+}$	+	+	┪		H	t	+	+	┪	+		Н	t	+	+	┪		$^{+}$	+	┪		H	+	+	+			⊢	十
+	$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$		$\vdash$	╆	╈	+	+	+	Ŧ		PRO	<del> </del>	١	<del> </del>	+	,+	FIFI	DV	VOI	RK.	т	т			20				Ť	ή		Ͱ	+	+	$\dashv$		Н	+	+	+	$\dashv$	Н	$\vdash$	╁	+	+	+	$\dashv$		$\vdash$	╁	+	+	$\dashv$		+	+	$\dashv$		╁	╁	+	$\dashv$		_	⊢	十
+	$\forall$	$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$		$\vdash$	╆	+	+	+	+	₹	$\dashv$		5	CH	EMA	TIC	1	SIG	N I		Ì	╁	+	Т	ή	·	ř	Ť	Ή	+	$\dashv$	$\vdash$	Ͱ	╁	+	$\dashv$		⊢	+	+	+	┪	Н	$\vdash$	╁	+	+	$\dashv$	$\dashv$	_	┝	╁	+	+	$\dashv$		+	+	$\dashv$		╁	╁	+	┪	$\dashv$	_	⊢	十
+	+	$\dashv$	+	$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$		$\vdash$	╀	+	+	+	+	+	$\dashv$		H		I	1	1	100	\ <u>\</u>		L DATE	I NIT	+	+	$\dashv$	_	⊢	╫	+	+	$\dashv$	_	⊢	+	+	+	_	Н	٠	ᇤ	14	ᆮ		$\vdash$	╁	+	+	+	$\dashv$	_	H	⊢	+	+	$\dashv$		+	+	$\dashv$	_	⊢	╁	+	$\dashv$	-	$\overline{}$	⊢	十
+	+	$\dashv$	+	$\dashv$	$\dashv$	$\dashv$	$\dashv$	-		⊢	╀	╀	+	+	+	$\dashv$	$\dashv$	$\vdash$	$\vdash$	Н	Н			DE	VE	LOF	IVIC			1	_		<u> </u>	Ŧ	+	1	_	Ļ	⊢	╀	+	+	_	<u>_</u>	_			SE		Ļ	Ļ	+	+	+	$\dashv$		H	╀	╀	+	$\dashv$		+	+	$\dashv$		╀	╀	+	$\dashv$		_	⊢	+
+	$\sqcup$	4	$\dashv$	4	4	4	4	_		$\vdash$	╀	+	+	4	4	$\dashv$	$\dashv$	$\vdash \vdash$	$\vdash$	┞	Н	1	1	1				Į,	CO	_					ciur				┞	+	4	4	1/	_				cs			느	4	4	4	4		$\vdash$	╀	+	4	4		+	4	4		╀	╀	4	4	Ц	_	$\vdash$	+
$\bot$	Щ	4	ightharpoons	4	4	4	4			L	L	$\perp$	$\downarrow$	4	$\perp$	ightharpoons	$\sqcup$	$\sqcup'$	L	L	L	$\perp$	$\perp$	4	ightharpoonup		L	Ц	1				_	_	ΕVI	ΕŴ	8./	APP	RO	VAL	1	ightharpoons		L	RΕ	N	υ	AT	10	N	┖	1	4	4	4		L	┖	1	4	_		$\perp$	4	$\Box$		L	┸	4	4		_	$\perp$	$\downarrow$
											L	$\perp$							L	L	L						L	L			В	DDI	NG					L	L	$\perp$					L					L		$\perp$					L	L	$\perp$								L	L					L	$\perp$
	Π	T	T	T	T	T	T				Γ			T	T	T							T	T	T				Γ	T		V	AC.	ATE	DE	МО	AR	REA				T			Γ		T	T				Γ	T	T	T					T				T					T	T				
	$\Box$	✝		$\dashv$	┪	┪	┪			Г	Т	Τ	$\top$	$\top$	$\top$	†	$\neg$	$\sqcap$	Г	Г	Т	T	十	1	┪		Г	Τ	Ť	す			_	_	_	_			_	ЮB	ILIZ	ATI	ION		T	$\top$	寸	┪		Г	Т	T	T	寸	寸		Г	Т	Ť	$\top$	$\neg$		T	$\top$	$\forall$		Г	Ť	$\top$	┪			Г	T
$\top$	П	┪	╅	┪	┪	┪	┪	┪		Н	t	十	+	$\top$	十	十	$\dashv$	$\sqcap$	一	t	t	+	+	†	┪		Н	T	+	+	П	П		s	ELE	CTI	VE	DEI	иоі	ITIO	ON	/ H/	٩ZA	RD	OU:	S M	IAT E	RIA	LS	AB/	ATE	ME	NT	┪	┪		Т	t	+	+	┪		t	$^{\dagger}$	7	Т	T	t	+	┪			Н	†
+	+	+	$\dashv$	$\dashv$	┪	┪	┪	-		$\vdash$	╆	+	+	+	+	十	$\dashv$	$\vdash$	$\vdash$	H	╁	+	+	+	┪		Н	╁	+	NS	TRI	ICT	101		t	t			H	t	t	ı			t	t	ı				t	t	t				CC	NS.	TRI	ICT	101	Ji .	$^{+}$	+	┪	_	╁	+	+	┪		_	⊢	十
+	+	$\dashv$	+	$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$		⊢	╀	┿	+	+	+	+	$\dashv$	$\vdash$	$\vdash$	╀	╀	┿	+	+	┥	_	⊢	╀	Ť	Ť	Ï	-	1	+	٠	+	۲		Н	۰	٠	7			140	/A B	_		шОА	AENI	1		, I	-	OVE	LNI	00	H	T	+			+	+	$\dashv$		╀	┿	+	┥	Н	_	⊢	十
+	+	-	+	$\dashv$	$\dashv$	$\dashv$	$\dashv$	-		⊢	╄	┿	+	+	+	+	$\dashv$	$\vdash$	$\vdash$	╀	╀	+	+	+	$\dashv$		⊢	╀	+	+	$\dashv$		⊢	╀	+	+	$\dashv$	_	⊢	╀	+	$\dashv$		.,	VIO	VAD	-		JIPIN	MEIN	1	T	INCI	X IVI		-IIN	H	H	Ψ.	+	$\dashv$		╀	+	$\dashv$		╀	╀	+	4	Н	—	⊢	+
$\bot$	Н	4	4	4	4	4	4	_		╙	╄	╄	4	4	4	4	_	$\sqcup$	$\vdash$	┡	╀	4	4	4	4		L	╀	4	4	4		┡	1	4	4	4	_	L	╀	4	4		L	╀	4	4	4	Щ	L	╄	4	4	4	4		L	╙	4	4	4		1	4	4		╄	╀	4	4		_	╄	$\downarrow$
	Ц	_	4	4	4	4	4			ᆫ	丄	┸	1	4	4	$\dashv$		$\square$	$\vdash$	L	┸	╀	1	4	4		L	L	1	4	_		L	╀	1	4	_		L	╀	4	4		L	┸	4	4	_		L	L	╀	4	4	4		L	L	┸	4	_		$\downarrow$	4	$\sqcup$		L	┸	4	4		_	丄	$\perp$
J F	М	Α	М	J	J	Α	S	0	Ν	D	J	F	1	М	A	М	J	J	Α	S	0	1	1	D	J	F	М	Α	\ I	И	J	J	Α		3 (	0	N	D	J	F	=	М	Α	М	١ ,	J	J	Α	S	0	Ν	1 [		J	F	М	Α	M	1 ,	J	J	Α		S	0	Ν		,	J	F	М	Α	М	Į į
											ı										l							l	ı					ı											ı								ı						ı									ı						
Т	П	П	Т	П	П	П	Т			П	Г	Т	Т	Т	A	۱DV	. FC	RE	NG	NE	RS	Т	Τ	Т	П		Г	Г	Τ	Т	П		Г	Τ	Т	Т	П		Γ	Т	Т	Т		Г	Т		Т	SC	CHE	MA	TIC	DE	SIG	N	П			Г	Τ	Т			Τ	Т	П		Г	Т	Т	Т			Г	Τ
丅	П	┪	╅	┪	┪	╛	┪			Г	Т	Τ	T	寸	Т	$\neg$	s	BAC	SH	OR.	LIS	T	T	1	┪		Г	Τ	T	┪	╗		Γ	T	T	✝	╗		Г	T	T	┪		Г	T	T	┪								.OP	MEI	VΤ	Т	T	T	╗		T	T	╛		Τ	T	T	┪			Г	T
+	Н	_	$\dashv$	+	┪	┪	┪			H	t	+	+	$\dagger$	+	寸	_		ERV	_	_	_	+	+	┪		Н	H	+	+	┪		Н	+	+	+	┪	Н	H	T	+	┪		H	t	+	+	7		h	ı	t	t					CON	IST	RUC	CTIC	NC	100	CU	IME	NTS	<del>     </del>	t	+	┪			H	十
+	$\forall$	$\dashv$	$\dashv$	$\dashv$	┪	┪	┪	┪		$\vdash$	╆	+	+	+	+	十	-		NE	_	_		_	EIE	- H		Н	╁	+	+	┪		┢	+	+	+	┪	Н	┢	+	+	┪		┢	+	+	+	┪	Н	Н	т	т	Ŧ	7	7		Н	_	_	_			_	_	/IEW		_	DRO	)\/A	,	Н		⊢	十
+	+	$\dashv$	+	$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$		⊢	╀	┿	+	+	+	+	$\dashv$		INC.	PRO	1	1	1		I			<del> </del>	+	+	$\dashv$		⊢	┿	+	+	$\dashv$	_	⊢	┿	+	$\dashv$		⊢	┿	+	귺				╀	+	+	+	$\dashv$		Н	Н		BIC				Ť	-	v O.	T	+	T	+	Н		⊢	+
+	+	-	+	$\dashv$	$\dashv$	$\dashv$	$\dashv$	_		⊢	╀	+	+	+	+	+	$\dashv$	$\vdash$			_						l v	I	1	+	$\dashv$		┞	╀	+	+	$\dashv$	L	┞	╀	+	$\dashv$		L	╀	-		A			╀	+	+	+	$\dashv$	_	L	μ	- 3	BIL				+	_			1	+	4		—	⊢	+
$\bot$	Н	4	4	4	4	4	4	_		┡	╄	╄	4	4	4	4	_	$\sqcup$	ш	Ľ	SCH				SIC		L	╀	4	4	4		L	1	4	4	4		L	╀	4	4		L	1			EA.			L	4	4	4	4		L	╄	4	1	ľ	AC/	ATE	SE	EAT	ON	RE	MO	DEI	L AF	REA	ION	╄	$\downarrow$
$\perp$	Ц	_	_	_	$\perp$	$\perp$	_			L	L	┸	⊥	_	_	$\perp$	$\_ ot$		L	Ц		D	EŚI	3N I	DEV	/EL	ÒPN	/EN	IT	1	_		L	┸	⊥	1	_		L	┸	1	_			L	RE	ΞN	ov	ΑΊ	ΓIC	N	⊥	1	_	$\perp$			L	⊥	Щ		CO	TÚC	RA	CT	AW	AR	D/1	MÒE	3ILÌ	ZAT	ION	1	$\perp$
										L	L							L'			L				CON	ST	RUC	TIC	ЙC	DO	CUN	IEN	TS						L						$\perp$							$\perp$										SE	LE/	CŢľ	VΕ	DEI	MOI	LITI	NO.	/ AE	ВАТ	EME	Î ENT	
		Т	T	T	T	T	Т			Γ	Γ	Γ	T	T		U	TII	LIT	Υ	Γ	Γ	T	T	I		BID	DIN	Ģ	T	T			Γ	Γ	T	T	$\neg$		Γ	Γ	T	T		Г	Γ	T	T	T			Γ	Τ	T	T	T	(	201	IST	RU	CTIC	NC								T	T			Г	T
$\top$	一	寸	寸	$\dashv$	$\dashv$	$\dashv$	寸	$\neg$		Γ	Т	$\top$	$\top$	IN	FR	AS	TI	RU	СТ	UF	ŔĒ	T	$\top$	Ť	$\neg$			CON	ITR	AÇ.	ΓA\	NAF	RD/	MC	BIL	IZA	TIO	N	Г	T	$\top$	寸		Γ	T	$\top$	寸	$\dashv$	П	Г	Τ	十	T	寸	寸			Т				BLI	ΕE	QU	IPN	1EN	T/	ow	NEF	R M	OVE	E-IN		T
$\top$	$\dashv$	$\dashv$	$\dashv$	$\forall$	$\dashv$	$\dashv$	$\dashv$	$\neg$		Т	t	$^{\dagger}$	$\dagger$	Т		_		JE	_		Т	$^{\dagger}$	$\dagger$	†	┪		n		t	t			-	+	TRU	-	$\dashv$	-	T	$^{\dagger}$	$\dagger$	$\dashv$		T	T	$\dagger$	$\dagger$	$\dashv$	T	Т	t	$^{\dagger}$	†	$\forall$	$\dashv$		Т	t	$\dagger$	T	$\dashv$		$\dagger$	$\dagger$	$\forall$		t	Ť	$\dagger$	$\dashv$	$\exists$		Г	T
+	$\dashv$	$\dashv$	$\dashv$	$\forall$	$\dashv$	$\dashv$	$\dashv$	$\dashv$		$\vdash$	✝	+	+	+	T	T	$\Box$		Ė	Т	✝	+	+	+	$\dashv$		Н	Т	T	+				+	+	+			┢	+	+	$\dashv$		$\vdash$	+	+	+	$\dashv$	$\vdash$	$\vdash$	$^{+}$	+	+	$\dashv$	$\dashv$		$\vdash$	$^{+}$	+	+	$\dashv$		十	+	$\dashv$		✝	+	+	$\dashv$	$\dashv$		$\vdash$	十
+	$\dashv$	$\dashv$	+	$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$		$\vdash$	╁	+	+	+	+	+	$\dashv$	$\vdash$	$\vdash$	╁	╁	+	+	+	$\dashv$		$\vdash$	╁	+	+	$\dashv$		$\vdash$	+	+	+	$\dashv$	$\vdash$	⊢	+	+	$\dashv$		$\vdash$	+	+	+	$\dashv$	Н	$\vdash$	+	+	+	+	$\dashv$		$\vdash$	+	+	+	$\dashv$		十	+	$\dashv$		╁	╀	+	$\dashv$	$\dashv$	_	$\vdash$	十
+	$\dashv$	+	+	+	$\dashv$	$\dashv$	$\dashv$	$\dashv$		$\vdash$	╀	+	+	+	+	$\dashv$	$\dashv$	$\vdash \vdash$	$\vdash$	╀	╀	+	+	+	$\dashv$		$\vdash$	╀	+	+	$\dashv$		⊢	╀	+	+	$\dashv$	$\vdash$	⊢	+	+	$\dashv$		$\vdash$	+	+	+	$\dashv$	Н	$\vdash$	╀	+	+	+	$\dashv$		⊢	╀	╀	+	$\dashv$		+	+	$\dashv$		╀	╀	+	$\dashv$	$\dashv$	_	$\vdash$	+
+	$\dashv$	4	$\dashv$	4	4	$\dashv$	4	4		$\vdash$	╀	$\bot$	+	4	4	$\dashv$	$\dashv$	$\vdash$	$\vdash$	╀	╀	+	4	4	4		$\vdash$	╀	4	4	4		┞	1	4	4	4	<u> </u>	┞	+	4	4		1	+	4	4	$\dashv$	Ц	$\vdash$	╀	+	4	4	4		<u> </u>	╀	+	4	4		+	4	4		╀	1	+	4	Ц	_	$\vdash$	+
	Ц	$\perp$	$\perp$	$\perp$	$\dashv$	$\perp$	$\perp$			$oxed{oxed}$	L	$\perp$	$\perp$	$\perp$	$\perp$	$\perp$	$\sqcup$	$\bigsqcup'$	L	L	$\perp$	$\perp$	$\perp$	⅃	Ц		L	L	1	$\perp$			$\perp$	$\perp$	$\perp$	$\perp$			L	$\perp$	4	$\perp$		L	$\perp$	$\perp$	$\perp$	Ц	Ш	$oxed{oxed}$	$\perp$	$\perp$	1	$\perp$	$\perp$			L	$\perp$	$\perp$	_		$\perp$	$\perp$	$\Box$		L	⊥	4	_		_	$\perp$	1
											L	$\perp$							L								L	L											L	$\perp$					$\perp$																												L	$\perp$
		Т	T	T	T	T	T				Γ			T		T				Γ	Γ		Γ	T	T			Γ	Γ	T			Γ	Γ	Γ	T			Γ		T	T				T	T	T			Γ		T	T	T				Г	Т			Г	Τ	T		Γ		Τ	T				